

Compartment Review Presentation

Gladwin Forest Management Unit

Compartment 140 Entry Year 2015 Acreage: 2,726

County Arenac

Management Area: Gladwin Lake Plain

Revision Date: 05/22/2013

Stand Examiner: Mark Reichel

Legal Description:

T19N R5E Sec 13, 14, 22 - 24; T19N R6E Sec 17 - 20

Identified Planning Goals:

The primary silvicultural goals for this compartment are 1) Ash salvage due to emerald ash borer, 2) Early harvesting a number of lowland aspen stands that have low site quality and an ash component that is undergoing mortality from EAB. These stands will revert to non-forested lowlands unless aspen sprouting can be induced. Several of these stands will have to be habitat cut because of inoperably wet soils. 3) Selection harvests in a number of northern hardwood stands. These stands have a small ash component that can be salvaged in the process.

Soil and topography:

Most of this compartment is very flat, very low swampy areas that are part of the combined floodplains of the Rifle and Au Gres Rivers near their delta areas. Lake Huron is 2 miles to the south. The exception is the small area of low ridges east and west of Arenac State Rd. The river through this area has high floodplain benches that rarely flood. This area has rich soils that support northern hardwood forest types. 60% of this compartment is classified as Kotar unclassified wetland. Another 20% is Kotar PArVCo habitat type, which consists of low nutrient, mesic to wet soils. The remaining 20% is a combination of fairly high to high productivity AFO, PArVVb and PArVHa soils.

Ownership Patterns, Development, and Land Use in and Around the Compartment:

The 3,200 acre Wigwam Bay State Game Area lies just to the southeast of this compartment. The surrounding private land is almost all forested and has been subdivided into mostly 10 to 20 acre properties. There are a lot of residences along M-23, Conrad Rd., Arenac State Rd. and M-65. The Town of Omer is 1/4 mile north of the west end of the compartment. The town of Au Gres is a mile east of the eastermost parcel of the compartment. Most of the land to the southwest is farm land.

Unique Natural Features:

The Michigan Natural Features Inventory (MNFI) database indicated one species with the status of State Special Concern in areas affected by timber harvests in the compartment. This species is protected under a DNR Director's Order. Mitigation measures were determined from the MNFI abstract for the organism, and were incorporated into the prescriptions for the timber harvests in the potentially effected areas. The prescriptions for the stands where habitat for this organism exists will incidentally improve the habitat for the organism.

Archeological, Historical, and Cultural Features:

There are known concerns within the compartment. All proposed management activities have taken these concerns into consideration.

Special Management Designations or Considerations:

None.

Watershed and Fisheries Considerations:

Wildlife Habitat Considerations:

Compartment 140 contains a variety of habitat types suitable for many wildlife species. The compartment includes the Rifle River and adjacent large lowland complexes. These lowlands support various waterfowl, reptiles, amphibians, and their predators including raccoon, bobcat, mink, and Great Blue Heron. Furbearers including beaver, mink, muskrat, black bear, bobcat, and coyote use the lowlands as corridors as well as year round habitat. Many birds stand to benefit from the juxtaposition of lowland and upland habitats present in the compartment. These include common yellowthroat, yellow-rumped warbler, gray catbird, redeyed vireo, white throated sparrow, hermit thrush, red-breasted nuthatch, ruffed grouse, and American woodcock. The compartment is easily accessible to hunters via Conrad Road or State Road.

Mineral Resource and Development Concerns and/or Restrictions

Surface sediments consist of lacustrine (lake) sand, gravel, clay and silt. The glacial drift thickness varies between 10 and 50 feet. Beneath the glacial drift are the Pennsylvanian Grand River and Saginaw Formations, the Mississippian Bayport Limestone and the Michigan Formation. The Saginaw Formation is used for clay/shale, the Bayport for limestone/stone and the Michigan is quarried for gypsum. A limestone quarry is located just to the east. A gravel pit is located one mile to the south and there may be some potential. Several dry holes have been drilled in the area. Deep River Field, discovered in 1936, is located four miles to the west. The field has produced over 27 MBO from the Dundee Limestone. Most of the compartment is leased for oil and gas development.

Vehicle Access:

Because over 60% of the compartment is lowland, there is very limited access to most of the compartment. The only exception is sections 22 and 23. These sections have more upland, and Conrad and Arenac State Roads run through the area. This upland area is bisected by the Rifle River, but there is access from both sides of the river. A gate at the southeast edge of section 23 has done much to control past ORV and vehicle abuses of the area, although ORV abuse continues to be an issue.

Survey Needs:

There are monuments at 11 of the 43 corners in the compartment. An additional 3 monuments are useful in setting corners. Of the 27 treatments in this compartment this year of entry, 2 have all corners, 8 do not have all needed corners but can be mitigated, and 17 aren't adjacent to private land. Ten stands are factor limited because survey corners are needed. 11 corners are needed to put in blue line on currently treatments without needed mitigating measures. 13 additional corners would permit removal of limiting factors on 10 stands. 32 corners are needed to place monuments on all corners in the compartment.

Recreational Facilities and Opportunities:

There are no designated recreational facilities within this compartment, however use associated with the Rifle River is heavy. Fishing & watercraft use (canoes, kayaks) are common recreational activities in this portion of State land (TMN 5/6). Hunting is also a popular recreational activity in this compartment.

Fire Protection:

Most of the compartment is lowland. "Swamp grass" ground cover in many of these areas has the potential to carry a fire, but overall fire danger and behavior is low. The northeast part of the compartment in sections 18 and 19 is a jack pine and bog complex and would carry a fire under the right conditions. Access would be very limited for fighting fire in this compartment. The upland areas at the west end of the compartment have more potential for fire, but also have better access.

Additional Compartment Information:

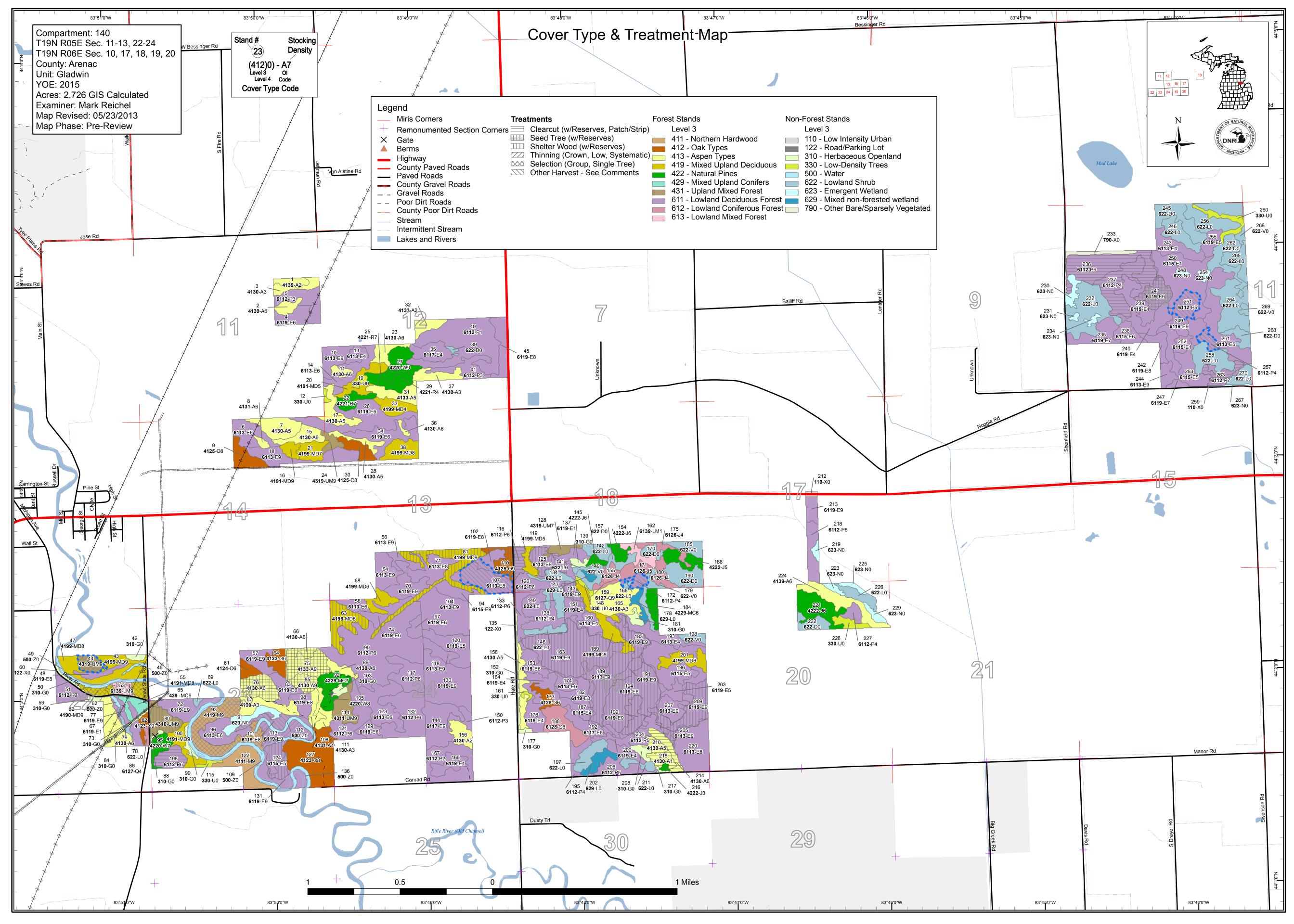
Old compartments 139 and 140 were merged to create this new compartment as part of the initiative to create larger compartments in Gladwin FMU.

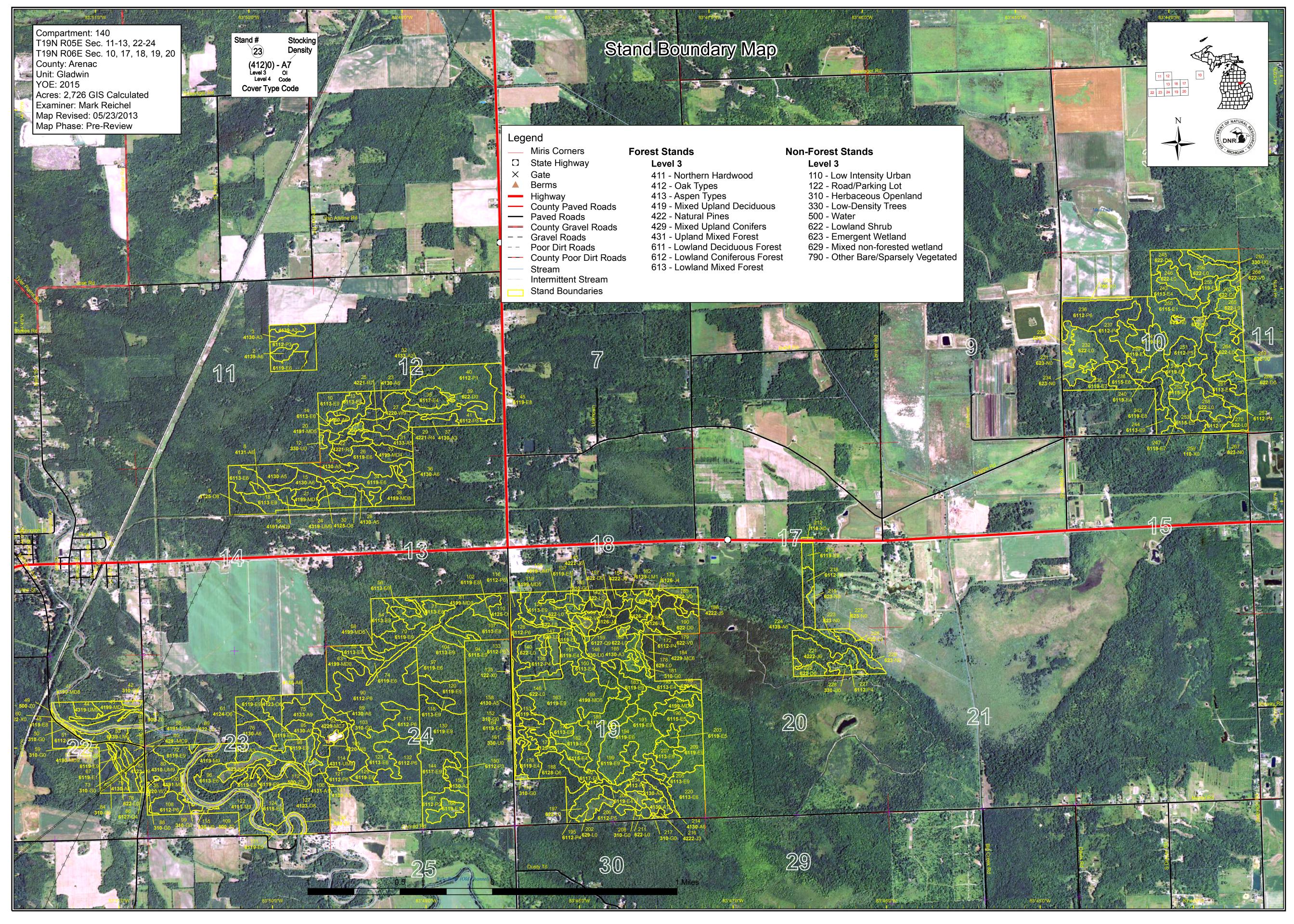
The following reports from the Inventory are attached:

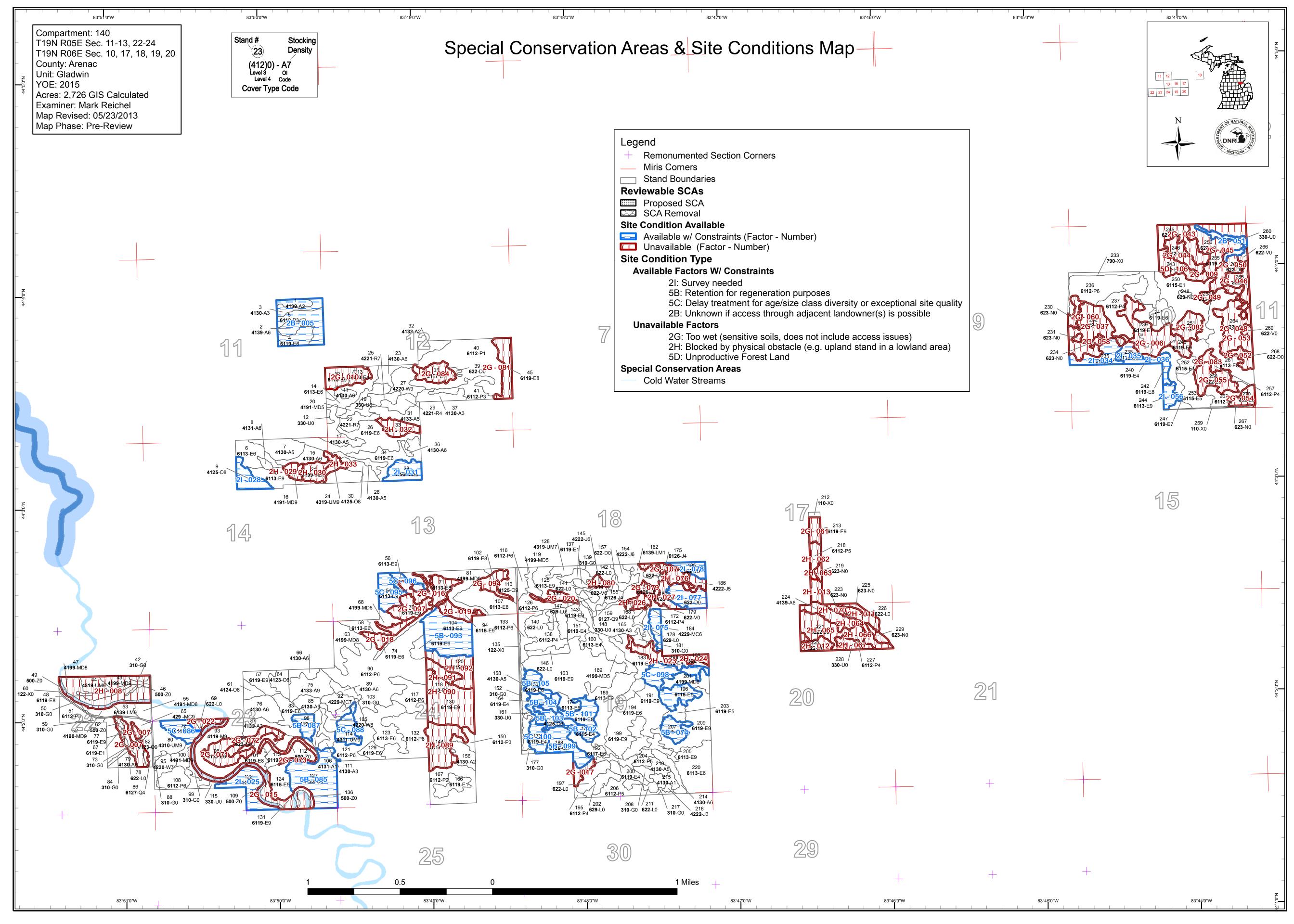
Total Acres by Cover Type and Age Class
Cover Type by Harvest Method
Proposed Treatments – No Limiting Factors
Proposed Treatments – With Limiting Factors
Stand Details (Forested and Nonforested)
Dedicated and Proposed Special Conservation Areas
Site Condition Details

The following information is displayed, where pertinent, on the attached compartment maps:

Base feature information, stand boundaries, cover types, and numbers Proposed treatments
Site condition boundaries
Details on the road access system







Compartment 140 Year of Entry 2015

Gladwin Mgt. Unit
Mark Reichel : Examiner



Age Class

Age Class																
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Aspen	0	79	16	22	112	0	17	9	0	0	0	0	0	0	255	
Bare/Sparsely Vegetated	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
Bog	27	0	0	0	0	0	0	0	0	0	0	0	0	0	27	l
Herbaceous Openland	28	0	0	0	0	0	0	0	0	0	0	0	0	0	28	
Jack Pine	0	0	9	1	0	0	0	46	0	0	0	0	0	0	56	
Low-Density Trees	20	0	0	0	0	0	0	0	0	0	0	0	0	0	20	
Lowland Aspen/Balsam Poplar	0	120	0	277	0	0	41	6	9	0	0	0	0	0	454	
Lowland Conifers	0	0	0	0	0	0	6	16	0	0	0	0	0	2	24	
Lowland Deciduous	0	9	37	127	140	0	66	83	252	155	65	0	0	178	1112	i
Lowland Mixed Forest	0	0	6	0	0	0	0	0	0	5	0	0	0	0	11	
Lowland Shrub	182	0	0	0	0	0	0	0	0	0	0	0	0	0	182	l
Marsh	30	0	0	0	0	0	0	0	0	0	0	0	0	0	30	
Mixed Upland Deciduous	0	0	5	22	10	7	32	25	0	15	0	0	0	56	172	i
Natural Mixed Pines	0	0	0	0	0	0	0	7	8	0	0	0	0	0	15	
Northern Hardwood	0	0	0	0	0	0	0	0	31	19	0	0	0	0	50	
Oak	0	0	0	12	8	3	0	16	9	37	0	0	0	0	86	
Red Pine	0	0	0	0	13	0	0	0	0	0	0	0	0	8	20	
Treed Bog	66	0	0	0	0	0	0	0	0	0	0	0	0	0	66	l
Upland Conifers	0	0	0	0	0	0	6	0	0	0	0	0	0	0	6	l
Upland Mixed Forest	0	0	0	0	0	0	0	5	12	13	0	0	0	12	41	i
Urban	10	0	0	0	0	0	0	0	0	0	0	0	0	0	10	i
Water	32	0	0	0	0	0	0	0	0	0	0	0	0	0	32	i
White Pine	0	0	0	0	11	0	0	7	5	0	0	0	0	0	23	
Total	400	208	73	462	294	11	168	220	326	245	65	0	0	254	2726	



Report 2 – Proposed Treatment Summaries

Gladwin Mgt. Unit Year of Entry 2015

Compartment 140 Total Compartment Acres: 2,726

Acres by Treatment Type

Commercial Harvest - 511

Tree Planting - 0

Other - 0

Habitat Cut - 27

Opening Maintenance - 0

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			# 0.	(6,00,0)	Lie S	o de la composição de l	Cindino Ori		Se	
(Habitat Cut)Lowland Deciduo	us Forest	0	0	0	0	0	20	20		
(Habitat Cut)Upland Mixed For	est	0	7	0	0	0	0	7		
Aspen Types		17	0	42	0	0	0	60		
Lowland Deciduous Forest		82	0	13	207	13	27	342		
Mixed Upland Deciduous		0	12	0	46	0	0	58		
Northern Hardwood		0	31	0	0	0	0	31		
Oak Types		0	0	0	9	0	0	9		
Upland Mixed Forest	Forest 0 0 0 12 0 0 12									
	Total	100	50	55	273	13	48	539		

Report 3 -- Treatments Prescribed with No Limiting Factor

Compartment: 140 Year of Entry 2015

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	MICHIGAN

a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
163	73140_SW_S VG_West	103.2	6119 - Mixed Lowland Deciduous Forest	High Density Log	90	81-110	Harvest	Shelterwood	6113 - Lowland Maple	Cmpt. Review Proposal

Prescription Harvest ash and trace of aspen via species designation harvest. Pre-salvage and salvage for EAB. Harvest during dry or frozen conditions. Include in same cutting unit with adjacent ash salvage treatments. Part of C 140 Ash Salvage Sale, #13 - 2013. Includes stands 163, 183, 189 Specs:

and 191. This area of sale is mostly sawlogs, and residual stand will be mostly sawlog sized maple.

Other At time of sale preparation (Completed February 2013) there was only 20 to 30% ash mortality due to EAB in eastern 80% of unit. EAB was

Comments: heavier at west end closer to Hale Rd.

Next Steps:

S

Proposed

Start Date: 10/01/2012

73140052 Sel 4.0 4190 - Mixed High 90 141-170 Harvest Single Tree 4110 - Sugar Maple Cmpt. Review Upland Deciduous Density Log _s Selection Association Proposal

with Cedar

Prescription Single tree selection: mark to retain all sugar maple, red oak and bitternut hickory, plus enough basswood, cedar and swamp white oak to equal Specs: residual BA of 70 to 80. Mark to achieve all aged stand and to remove cull trees where possible. Ok to have uniform density or some openings. Also mark at least a few of each other spp in stand as retention with exception of ash. Follow riparian RMZ BMP's as stand is adjacent to Rifle River. Harvest only during the period of September 1 to April 30 due to MNFI occurrence.

St 53 is 48% N. hdwd spp including RO, = 70 BA. Stand is on roughly 5 to 6 foot bench above river, so it floods rarely, hence rich upland soils. Other Timber a little smaller and sparser at west end of stand. West end is used for camping for sucker fest and has fire rings, litter and a road to edge Comments:

of river. This needs to be blocked off during timber sale. Trace of white pine (canopy), red maple, CHINKAPIN OAK, and blue beech

(subcanopy).

Next Steps:

Proposed 10/01/2014 Start Date:

73140053 Sel 37 4190 - Mixed 141-170 52 High an Harvest Single Tree 4110 - Sugar Maple Cmpt. Review Upland Deciduous Density Log Selection _s Association Proposal with Cedar

Specs:

Prescription Single tree selection: decrease BA to 70 to 80. Leave all bitternut hickory, sugar maple, basswood, white oak, red oak and cedar, plus a few each of cottonwood, birch and white pine for retention. Mark to retain. Use regen protection spec; be very careful of regen, especially some very rare cedar saplings. Harvest only during the period of September 1 to April 30 due to MNFI occurrence.

Other Light sugar maple and basswood seedlings. Heavy regen and hawthorn at NE end. 21% N. HDWD spp (35 BA); MO is N. HDWD. Stand is on Comments: bench above River, so it floods infrequently. Use RMZ BMP's. Wild River designation ends upstream from here.

Next Steps:

Proposed

Specs:

Start Date: 10/01/2014

73140055 Sel 4.7 4190 - Mixed High 90 141-170 Harvest Single Tree 4110 - Sugar Maple Cmpt. Review Upland Deciduous Density Log Selection Association Proposal _s with Cedar

Prescription Selection harvest, with long-term MO of N. Hdwds. Currently about 25% N. Hdwd spp. Mark trees to remove: mark all ash (salvage), then additional white pine and red maple (in order of priority) to reduce BA to 70 to 80. This is intermediate thinning to set stand up for uneven aged management. Residual stand should have to the extent possible a range of diameters that follow a typical Q curve. Do not remove any sugar maple, basswood, red oak or bitternut hickory. Specify in contract that hornbeam must be cut. Harvest only during the period of September 1 to April 30 due to MNFI occurrence. STAND MUST BE SEPARATE CUTTING UNIT FROM STANDS TO WEST: DELINEATE WITH YELLOW LINE.

Stand is bench adjacent to Rifle River: follow RMZ mgt. guidelines if harvest. Tr of BTA, RO in canopy; RO DGWD, W, Prickly ash, WA, Haz, <u>Other</u> Comments: WO and unidentified shrub in understory. Light sugar maple and basswood seedlings.

Next Steps: Proposed

10/01/2014 Start Date:

Report 3 -- Treatments Prescribed with No Limiting Factor

Compartment: 140 Year of Entry 2015

DEPARTME	DNR DNR
	MICHIGAN

a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
63	73140063_SW	17.5	4199 - Other Mixed Upland Deciduous	Medium Density Log	64 I	81-110	Harvest	Shelterwood	4191 - Mixed Upland Deciduous with Conifer	Cmpt. Review Proposal

Specs:

S

Prescription Harvest aspen and maple only as species designation harvest. Mark 1 large high quality maple per acre as source for single stem maple. MO to regen aspen and maintain in Mixd Upland Decid. stand. All other spp. and marked maple will serve as retention by BA. Use dry/frozen spec.

Other Comments: Hydrology: 5 of 10. On mesic and little higher nutrient soil. Almost lowland. Access will be difficult: via road along ridge coming from southwest. Will have to cross short very wet area to get to southernmost ege of stand. Will also have to cross drainage in center of stand.

Found: 4 witness trees, N-S blue line and road running E-W along N edge.

Next Steps:

Proposed

Start Date: 10/01/2014

73140075 ST 27.5 4133 - Aspen, High Harvest Seed Tree with 4130 - Aspen Cmpt. Review 75 Mixed Pine Density Log Reserves Proposal

Prescription Harvest aspen, red maple and white pine only. Mark 3 s.f. of white pine to retain.

Specs:

Other_ Comments: Early aspen harvest to regulate aspen at management area level. Hydro 3 - 4.5. Shallow hummocks at south end. Drain at west end; ittle wetter at this end. Some aspen small logs. SI 55 to 65. Could be managed as aspen or white pine in future. Trace of birch, balsam fir in

subcanopy.

Evaluate natural regeneration next inventory cycle or at TCR + 4 years if next inventory is >6 years. <u>Next</u>

Steps:

Proposed

10/01/2014 Start Date:

Seed Tree with 76 73140076 ST 15.0 4130 - Aspen High 41 51-80 Harvest 4131 - Aspen, Oak Cmpt. Review Density Reserves Proposal Pole

Prescription Harvest all aspen, red maple and white pine. Mark 5 s.f. white pine for retention.

Specs:

Other Comments: Early aspen harvest to meet management area level aspen regulation targets. Dont require cutting maple saps but don't protect them either. Should result in mixed A/O/M stand. Should increase oak and maintain aspen. Seems like soil has higher nutrient level than most of Gladwin FMU. Aspen and oak supercanopy over M. Good aspen SI of about 65. Found rebar with flagging, 1/4 inch pipe painted white with orange top. old blue marked trees. At corner according to GPS. Trace of white oak, green ash, red pine, birch (canopy); white pine, black cherry, hazel,

birch, cedar, hornbeam (subcanopy)

<u>Next</u> Survey natural regeneration next inventory cycle, or at TCR + 4 years if next inventory > 6 years.

Steps:

Proposed

10/01/2014 Start Date:

73140080 SW 12.0 4310 - Pine, Oak High 111-140 Harvest Shelterwood 4122 - Oak, Pine Cmpt. Review Mix Density Log Proposal

Specs:

Prescription Shelterwood. Reduce BA to 60 by individual tree marking to retain. Retain all red oak and hemlock. Mark white oak (roughly 25 SF) plus a few white pine to retain, to reach 60 SF residual. Retention island around hemlock and American beech at N end, and include statement in specs to cut no beech or hemlock. There is some hemlock regen, including saplings. Use regen protection spec and document pre-harvest understory with photos. Landing in opening just to S behind gate. Check with WLD to see if this is maintained opening (doesn't look like it).

Other Total BA = 133. Tr of Am beech, hemlock and red pine in understory.

Comments:

Next Steps:

<u>Proposed</u>

Start Date: 10/01/2014

Report 3 -- Treatments Prescribed with No Limiting Factor

Compartment: 140 Year of Entry 2015

a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
81	73140081_SW	28.3	4199 - Other Mixed Upland Deciduous	High Density Log	79	81-110	Harvest	Shelterwood	4199 - Other Mixed Upland Deciduous	Cmpt. Review Proposal

Prescription Aspen species designation removal. Mark additional maple to reduce BA to 60. MO = oak + mixed decid. Use common landing with stand 110

to east. Specs:

<u>Other</u> Rd through N edge. S. end is narrow ridge with some low spots. This ridge is separated from rest of stand by very wet drain at NE end that may require culvert. Western 3 ac divided from rest of stand by narrow drainage. Monument on north end toward west end (C-S 1/16 Crnr). Old blue Comments: line. Tr of BC, W, GA, BA, Sug M, YB, WO (canopy); WO, W, SVCB, C, BB, BA, E (sub). This stand provides age diversity and is an upland surrounded by lowland stands with some large specimen oak. Oak needs to be regenerated or stand will revert to maple.

Next Steps:

S

Proposed

Start Date: 10/01/2014

73140093 Sel 31.0 4119 - Mixed High 81 81-110 Harvest Single Tree 4110 - Sugar Maple Cmpt. Review 93 Northern Hardwoods Density Log Selection Association Proposal

Prescription Remove ash, red maple, white pine and white oak by individual tree marking to remove. Will reduce BA to roughly 80. This treatment accomplishes a silvicultural objective but will also salvage ash; otherwise would have waited 10 years to enter stand again. Harvest only during Specs: the period of September 1 to April 30 due to MNFI occurrence.

Sparse regen. Ave BA 98 from 18 plots. Old red line still visible. Adjacent to river on relatively high bench: upland soil that floods occasionally Other (20 to 50 yrs?). Heavy equisetum grnd cov. Tr of Sug map, WA, W, YB, WA, HB, BW, HAZ, BCH in understory. Comments:

Next Steps:

Proposed

10/01/2014 Start Date:

6.3 6119 - Mixed Medium 81 111-140 Harvest Other - Specify 4119 - Mixed Cmpt. Review 101 73140101_SW _SVG Lowland Deciduous Density Log in Comments Northern Hardwoods Proposal Forest

Specs:

Prescription Ash salvage: species designation ash removal. Currently ash BA = 63, total BA = 133. Functionally a shelterwood harvest. Residual stand will still be fully stocked: residual trees will serve as retention. May be best to exclude 0.8 acres east of substantial drainage at east end. Harvest only during the period of September 30 to March 15, due to MNFI occurrence, and wet soils (dry/frozen harvest). Use a common landing for this stand and stands 93, 113 and 124.

Hydrology 6-7. Will push stand toward Northern Hardwood cover type. Heavy equisetum ground cover. Trace of W, Hem, Bch (Canopy); Sug Other Comments: Map (sub).

Next Steps:

<u>Proposed</u>

10/01/2014 Start Date:

108 73140108_FH 10.4 6112 - Lowland High 39 Harvest Clearcut with 6112 - Lowland Cmpt. Review Density Reserves Aspen Proposal Aspen Pole

Prescription Early harvest to regulate aspen age classes in this large compartment. Stand has fairly good volume now. Mark all oak, black cherry and birch and a few green marked white pine as roughly 5% retention by BA. Specs:

20-30% upland. Tr of BC, WO (can); WO, BA, haz (sub). <u>Other</u>

Comments:

Next Steps:

Proposed

Start Date: 10/01/2014

Report 3 -- Treatments Prescribed with No Limiting Factor

Compartment: 140 Year of Entry 2015 DNR DNR MICHIGAN

a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
110	73140110_SW	8.6	4125 - Black, N. Pin Oak	High Density Log	85	111-140	Harvest	Shelterwood	4125 - Black, N. Pin Oak	Cmpt. Review Proposal

<u>Prescription</u> Shelterwood: Reduce BA by removing aspen, ash and red maple (species designation). Mark additional poor quality black oak to reach residual <u>Specs:</u> BA of 60. Do not cut any cedar and leave a few white pine. Retain as much red oak as possible.

Other Mixed sawlog/pulp sale. Monument in middle of north private line to west, and old blue line. Some balsam fir and cedar at south end. Trace of Comments: WP and Cedar (canopy); B, C, F (sub).

Next Steps:

S

Proposed
Start Date: 10/01/

Start Date: 10/01/2014

126 6119 - Mixed High 81 81-110 Systematic 113 73140113_TH Harvest 4119 - Mixed Cmpt. Review SVG Lowland Deciduous Density Log Thinning Northern Hardwoods Proposal Forest

Prescription Ash salvage. Thin to 80 BA via species designation on ash and trace of aspen, plus additional individual tree marking if needed. Mark trees for removal. Mark for logger access. Be very careful not to cut any sugar maple, hackberry, red oak, black cherry, swamp white oak or silver maple. Harvest only during the period of September 30 to March 15, due to MNFI occurrence, and wet soils (dry/frozen harvest). Share landing with adjacent stands 93, 101 and 124.

Other Hydrology 4-6, average 5.5. 20% of ash was infested with EAB in winter of 2012/2013. 17 BA white ash. Former bottomland in meander of oxbow lake. Marked at one time: western 1/4 was thinned roughly 5 years ago. Equisetum ground cover. Trace of sugar maple, black cherry, quaking aspen, swamp white oak (canopy); RO, Sugar maple, BC, hackberry, B, W (sub).

Next Steps:

Proposed

Start Date: 10/01/2014

11673140116_FH5.16112 - Lowland
AspenHigh
Density64HarvestClearcut with
Reserves6112 - Lowland
AspenCmpt. Review
ProposalPole

<u>Prescription</u> Final harvest dormant, dry/frozen, NON-NEGOTIABLE. Cut aspen only; leave other species as retention by BA. <u>Specs:</u>

Other Aspen is old and stand is wet (Hydro 7). No monument found at corner, but found substantial (6" wood) posts across road to west with barbed Comments: wire fence running west. These were on line according to GPS. Power box in stand directly east of this fence. Tr of RO, BC, F, W, BO.

Next Steps:

<u>Proposed</u>

Start Date: 10/01/2014

6115 - Lowland Ash 51-80 Shelterwood 6119 - Mixed Cmpt. Review 124 73140124 SW 11.2 Medium Harvest Lowland Deciduous _SVG Density Proposal Pole Forest

<u>Prescription</u> Ash salvage seed tree harvest. Remove ash and aspen by species designation. Harvest only during the period of September 30 to March 15, <u>Specs:</u> due to MNFI occurrence, and wet soils (dry/frozen harvest). Share landing with adjacent stands 93, 101, and 113.

Other Ash BA 25. Large pole sized: harvest with surrounding stands. Sawlog and pulp harvest. Hydro 6.5-7. EAB 60-80% infestation during Comments: inventory. Floodplain (2nd tier bench). Trace of Hem, E (canopy); SWO, BW, QA, Dgwood, black willow (sub).

<u>Next</u> Steps:

Proposed

Start Date: 10/01/2014

Report 3 -- Treatments Prescribed with No Limiting Factor

Compartment: 140 Year of Entry 2015

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	MICHIGAN

a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
125	73140125_SW _SLVG	11.5	6113 - Lowland Maple	High Density Log	81 I	51-80	Harvest	Shelter Wood with Reserves	6113 - Lowland Maple	Cmpt. Review Proposal

<u>Prescription</u> Ash Salvage. Ash only species designation cut. Harvest dry/frozen. This treatment is part of C140 Ash Salvage Sale, #13-2013. <u>Specs:</u>

Other EAB 4 to 5 of 10; Hydrology 8 to 8.5 of 10. 25 BA ash. Trace of Swamp white oak (canopy), swamp white oak, birch (sub)

Comments:

Next
Steps:

S

Proposed

Start Date: 10/01/2012

143 73140143_SW 5.6 6119 - Mixed High 90 81-110 Harvest Shelterwood 6113 - Lowland Cmpt. Review __SVG Lowland Deciduous Density Log Maple Proposal Forest

<u>Prescription</u> Ash Pre-salvage (shelterwood). Harvest ash and trace of aspen via species designation. This treatment is part of C140 Ash Salvage Sale, #13-Specs: 2013.

Other Current BA 94 with 55 BA ash. Low EAB currently. Hydrology 8.5. MO = 6113. Trace of E, B (overstory); BB, E and B (understory).

Comments:

Next Steps:

<u>Proposed</u>

Start Date: 10/01/2012

194 73140194_SW 40.9 6119 - Mixed High 40 81-110 Harvest Shelterwood 6113 - Lowland Cmpt. Review **Lowland Deciduous** Density Maple Proposal _SVG Forest

Prescription Ash pre-salvage. Species designation harvest of ash (shelterwood). Harvest during dry or frozen conditions. Part of C 140 Ash Salvage Sale, # Specs: 13 - 2013. Landing to south in stand 208.

<u>Specs.</u> 13 - 2013. Landing to south in stand 200.

Other Ash BA 44, total BA 87. No EAB in stand during sale prep in February 2013. Hydrology 8.5 of 10. Supercanopy of silver maple, red maple and cottonwood 5-9%. Good ash volume: harvest with surrounding stands in one large salvage unit. Trace of B, CW, QA (canopy); SWO, Am E, Mi

Holly, B, TA (sub)

Next Steps:

Proposed

Start Date: 10/01/2012

199 73140199_SW9.26119 - MixedHigh90111-140HarvestShelterwood6113 - LowlandCmpt. Review_SLVGLowland DeciduousDensity LogMapleProposal

Prescription Ash pre-salvage. Species designation harvest (shelterwood) of ash only. Harvest during dry or frozen conditions. Part of C 140 Ash Salvage Specs: Sale, # 13 - 2013. Landing in stand 208 to south.

Other Currently 55 BA ash, tot BA 121. EAB zero, hydrology 8-9 (wetter at west end). Trace of Tam (canopy), BB, SWO (sub)

Comments:

Next Steps:

Proposed

Start Date: 10/01/2012

Report 3 -- Treatments Prescribed with No Limiting Factor

Compartment: 140 Year of Entry 2015

DEPARTME	DNR MICHIGAN
	MICHIGAN

a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
209	73140209_SW _SLVG	25.1	6119 - Mixed Lowland Deciduous Forest	High Density Log	90	81-110	Harvest	Shelterwood	6113 - Lowland Maple	Cmpt. Review Proposal

Prescription Ash salvage by species designation (shelterwood). Harvest during dry or frozen conditions only. Part of C 140 Ash Salvage Sale, # 13 - 2013. Specs:

Ash BA 52, total BA 94. Less than 10% EAB infestation during sale prep, February 2013. Hydro 8.5-9. Private line false posted 180 ft west of Other Comments: line: wire and a few signs. Trace of elm (canopy); B, E, unidentified shrub, SWO (sub)

Next Steps:

S

Proposed

Start Date: 10/01/2012

73140214 FH 7.1 4130 - Aspen High 38 Harvest Clearcut with 4130 - Aspen Cmpt. Review Reserves Proposal Density Pole

Prescription Early aspen harvest to regulate aspen age classes in compartment: there is a spike in 31-40 age class, and not enough aspen aged 50+ to restart. Leave all oak (2% of cover) for mast and retention. Specs:

Other

Comments:

<u>Next</u> Steps:

Proposed

10/01/2014 Start Date:

215 73140215 FH 10.4 4130 - Aspen Low 35 Harvest Clearcut with 4130 - Aspen Cmpt. Review Density Reserves Proposal Sapling

Prescription Final harvest, dormant season only. Cut aspen only. Leave jack pine, oak and tamarack as retention and as seed source if regen. fails. Specs:

Other 55-60% upland: very shallow microrelief. Very poor aspen site: should be converted to red or jack pine (but too wet to plant), or at least restarted to increase stem density. REGEN CONCERN. Tr of Tam, SWO, B, CC (can) W, B, BA, M, W, F, Tam (sub) Comments:

<u>Next</u> Steps:

Proposed

10/01/2014 Start Date:

236 73140236_FH 36.0 6112 - Lowland High 38 Harvest Clearcut with 6112 - Lowland Cmpt. Review Density Reserves Aspen Proposal Aspen

Pole Prescription Final harvest aspen only, DORMANT SEASON AND DRY/FROZEN, NON-NEGOTIABLE. Leave the 5% red maple. MO is to regen aspen and

maintain aspen stem density. Specs:

Wet (hydro 6 -7.5) stand and aspen is in fair condition and needs to be regenerated if aspen cover is to be maintained. EAB is killing ash, which Other will leave less than 10 BA of M unless regenerated. Portions may have to be excluded because too wet. Hydro 6 to 7.5. EAB 10 - 20% mort. Comments:

Tr of E (can); BC (sub)

<u>Next</u> Steps:

Proposed

Start Date: 10/01/2014

Report 3 -- Treatments Prescribed with No Limiting Factor

Compartment: 140 Year of Entry 2015

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`	MICHIGAN

a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
237	73140237_FH	23.1	6112 - Lowland Aspen	Low Density Pole	38		Harvest	Clearcut with Reserves	6112 - Lowland Aspen	Cmpt. Review Proposal

<u>Prescription</u> Clearcut to maintain forest cover. Aspen is already decadent and EAB is killing ash. Stand will revert to non forested wetland if not specs: regenerated. Very wet: harvest dormant, dry/frozen, non-negotiable. Do not cut maple or trace of hackberry.

Other Large amount of blowdown in this parcel from recent storm. Grnd cov swamp grass with sparse sensitive fern. Some hypoxylon active in Comments: aspen. Fair amount of grouse and woodcock in parcel considering poor and sparse condition of forests. Tr of E, Rose, Hackberry in subcanopy.

<u>Next</u> <u>Steps:</u>

S

<u>Proposed</u>

Start Date: 10/01/2014

241 73140241_ST 12.6 6119 - Mixed High 82 Harvest Seed Tree 6112 - Lowland Cmpt. Review
Lowland Deciduous Density Aspen Proposal
Forest Pole

<u>Prescription</u> Species designation harvest of all aspen and ash. Harvest to stimulate aspen sprouting, DORMANT SEASON AND DRY/FROZEN, NON-Specs: NEGOTIABLE. Do not cut any maple: stand cannot be planted if regen fails, so reserve red maple as seed source.

Specs. NEGOTIABLE. Do not cut any maple, stand cannot be planted it regentialis, so reserve red maple as seed source.

Other Aspen is decadent and EAB is killing ash. Stand will consist of nothing but 5 to 15 BA of red maple by next YOE, unless aspen is regenerated. Comments: Tr of B, E (canopy); E (sub)

Next Steps:

Proposed

Start Date: 10/01/2014

263 73140263_FH 7.8 6112 - Lowland Low 82 Harvest Clearcut with 6112 - Lowland Cmpt. Review Aspen Density Log Reserves Aspen Proposal

Prescription Final Harvest aspen, maple and ash. DORMANT, DRY/FROZEN ONLY. MO is to maintain forested stand and increase density of old, decadent

Specs: aspe

Other Fair amount of grouse and woodcock in this parcel despite declining forest and low density. Stand is 30-40% upland. Good ridge with road for Comments: landing. Will require culvert across ditch along road. May be some acreage reduction due to wet areas. Trace of RO, W (can); BC (sub)

<u>Next</u> Steps:

Proposed

Start Date: 10/01/2014

Total Treatment

Acreage Proposed: 490.3

Gladwin Mgt. Unit Report 4 -- Treatments Prescribed with Compartment: 140 a Limiting Factor s Year of Entry 2015 t а **Treatment** BA **Treatment Treatment Cover Type** Acres CoverType Size Stand **Approval** n d Name Density Age Range Type Method Objective Status 7.0 4319 - Mixed High 42380 - Non Pine 44 73140044_HA 100 141-Harvest Single Tree Cmpt. Review Density Log R **Upland Forest** 170 Selection Upland Conifer. Proposal Mixed Deciduous Prescription Habitat cut: Cut and do not utilize all hardwoods, except green mark all black maple, bitternut hickory, red oak, about 1/4 of birch, and most of Specs: the basswood. Also cut all white pine and leave as nurse logs for hemlock. Purpose of harvest is to 1) create hemlock nurse logs, 2) inhibit deer access to cedar (to regenerate) and 3) increase hemlock component of stand. Will reduce BA from 160 to roughly 100. MO in this stand is hemlock mix. Sale was marked last YOE but not cut due to access. Old (commercial) prescription was to harvest and remove hardwoods and fell and leave Other Comment: some hemlock for nurse logs to regenerate hemlock. Trace of American beech in canopy and W, M, B in subcanopy. Next Steps: Proposed 10/01/2014 Start Date: 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area) **Limiting Factor** 73140107 SL 6113 - Lowland Medium 141-Other - Specify in 6113 - Lowland Cmpt. Review 107 21.2 85 Harvest 170 Comments Maple Proposal Maple Density Log Prescription Remove ash and trace of aspen via species designation. Harvest during dry or frozen conditions. This treatment is part of C140 Ash Salvage Sale, #13-2013. Specs: Rx 11.2 of 20 ac in NE portion of stand. Old blue line intact for uncut sale. Close to 75% canopy. EAB 40-50% mortality. Non treatment portion **Other** Comment: of stand has roughly 80% ash mortality and is too late to salvage. Substantial reduction in BA due to ash mortality. Hydrology 5 to 8, average 7 (of 10). Disregard old orange marked trees from old sale. Ash BA 10. EAB hit largest trees in compartment first. Tr orf BA, QA, CW, E (canopy); RO, BB, E, B (sub) <u>Next</u> Steps: **Proposed** Start Date: 10/01/2012 Limiting Factor 2G: Too wet (sensitive soils, does not include access issues) 172 73140172 HA 4.7 6112 - Lowland Low 66 Harvest Other - Specify in 6112 - Lowland Cmpt. Review Comments Proposal B ST Density Aspen Aspen Pole Prescription HABITAT CUT: Cut all aspen, dormant season only. Leave all other species. FACTOR LIMITED: TOO WET TO HARVEST, AND NO MERCH VOLUME. Poor site, Other 4 2 2 Comment: Evaluate natural regeneration next inventory cycle or at TCR + 4 years is inventory is > 6 years. <u>Next</u> Steps: **Proposed** 10/01/2014 Limiting Factor 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area) 73140251 HA 1-50 6112 - Lowland Cmpt. Review 251 11.0 Medium 60 Harvest

Start Date:

6112 - Lowland Other - Specify in **B_SHW** Aspen Density Comments Aspen Proposal Pole

Prescription Habitat cut aspen only, dormant season only. This is attempt to regenerate aspen and to maintain a forested stand. Very wet and low density

Specs: aspen. Tr of B (can)

Other Stand may be non-forested next YOE due to aspen dieoff and EAB. Stand is too wet for commercial harvest.

Comment:

Evaluate natural regeneration next inventory cycle or at TCR + 4 years is inventory is > 6 years.

<u>Next</u> Steps:

Proposed 10/01/2014 Start Date:

Limiting Factor 2G: Too wet (sensitive soils, does not include access issues) Gladwin Mgt. Unit Report 4 -- Treatments Prescribed with a Limiting Factor

Compartment: 140 Year of Entry 2015 DNR DNR

a n d	Treatment Name	Acres	CoverType	Size Density	Stand Age	BA Range	Treatment Type	Treatment Method	Cover Type Objective	Approval Status
257	73140257_HA B_FH	4.6	6112 - Lowland Aspen	Low Density Pole	60	51-80	Harvest	Other - Specify in Comments	6112 - Lowland Aspen	Cmpt. Review Proposal

Prescription Habitat cut dormant season only. Cut all aspen only.

Specs:

S

Aspen decadent: 50% chance will regenerate but will revert to L type if can't regen aspen. About 40% canopy. EAB 40% infested.

Other Comment:

Next Evaluate natural regeneration next inventory cycle or at TCR + 4 years is inventory is > 6 years.

Steps:

<u>Proposed</u>

Start Date: 10/01/2014

<u>Limiting Factor</u> 2G: Too wet (sensitive soils, does not include access issues)

Total Treatment

Acreage Proposed: 48.5

Mark Reichel: Examiner

Availa	ability for l	Management									
Total	Acres	Acres	De	ominai	nt Site	Cond	ditions	8			
Acres	Available	Not Available		No	5D	5C	5B	21	2H	2G	2B
255	238	18	Aspen	222					17	0	16
56	10	46	Jack Pine	10					37	9	
454	413	41	Lowland Aspen/Balsam Poplar	398					20	20	15
24	24		Lowland Conifers	7			16				
1110	818	292	Lowland Deciduous	621	13	65	89	34	103	176	9
11	11		Lowland Mixed Forest	11							
171	123	48	Mixed Upland Deciduous	112				12	48	0	
15	15		Natural Mixed Pines	8				7			
50	50		Northern Hardwood	31				19			
86	85	1	Oak	31			43	11		1	
20	20		Red Pine	20							
6	6		Upland Conifers	6							
41	30	12	Upland Mixed Forest	18		12			12		
23	23		White Pine	23							
2,323	1,867	457	Total Forested Acres	1,520	13	76	148	83	237	207	40
	80%	20%	Relative Percent				_		-		-

^{*}Due to limitations in the current Site Conditions Analysis tool, all nonforested acres are considered available. Future development will enable analysis of nonforested types.

	Dominant Site Cond Availability	Dominant Site Condition	Acres	Other Site Condition	Other Site Condition	Other Site Condition	Other Site Condition
005	Available	2B: Unknown if access through adjacent landowner(s) is possible	40	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)			
_	omments: arcel completely su	urrounded by private land. Dr 2G: Too wet (sensitive	rainage a	and private blocks this parce	el from state parcel to sou	th.	
000	NOT Available	soils, does not include access issues)	32				
С	omments:						

Gladwin Mgt. Unit
Mark Reichel: Examiner

007	Not Available	2G: Too wet (sensitive soils, does not include access issues)	13							
С	omments:									
008	Not Available	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	46	2E: Road needed	3D: Recreational / Scenic values	3J: Water quality / BMPs (stream, river, or lake)				
	Comments: 2H best fit: need very large, expensive culvert. Timber sale in this area went no bid twice for this reason.									
009	Not Available	2G: Too wet (sensitive soils, does not include access issues)	7							
С	omments:									
010	Not Available	2G: Too wet (sensitive soils, does not include access issues)	15							
С	omments:									
011	Not Available	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	7							
С	omments:									
012	Not Available	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	7							
С	omments:									

Compartment 140

Gladwin Mgt. Unit

Year of Entry 2015 Mark Reichel: Examiner 013 **Not Available** 2H: Blocked by physical 5 obstacle (e.g. upland stand in a lowland area) Comments: 014 2G: Too wet (sensitive 0 **Not Available** soils, does not include access issues) Comments: 2G: Too wet (sensitive 28 015 Not Available soils, does not include access issues) **Comments:** Rifle River floodplain 016 2G: Too wet (sensitive 16 Not Available soils, does not include access issues) **Comments:** 5 017 **Not Available** 2G: Too wet (sensitive soils, does not include access issues) Comments: 018 **Not Available** 2G: Too wet (sensitive 9 soils, does not include access issues) Comments:

Gladwin Mgt. Unit
Mark Reichel: Examiner

019	Not Available	2G: Too wet (sensitive soils, does not include access issues)	8		
C	omments:				
020	Not Available	2G: Too wet (sensitive soils, does not include access issues)	5		
C	omments:				
022	Not Available	2G: Too wet (sensitive soils, does not include access issues)	5	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	
C	omments:				
023	Not Available	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	13	2B: Unknown if access through adjacent landowner(s) is possible	
C	omments:				
024	Not Available	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	4	2B: Unknown if access through adjacent landowner(s) is possible	
C	omments:				
025	Available	2I: Survey needed	19		
C	omments:				

Compartment 140

Gladwin Mgt. Unit

Year of Entry 2015 Mark Reichel: Examiner 026 Not Available 2H: Blocked by physical 5 2B: Unknown if access 5D: Unproductive Forest obstacle (e.g. upland through adjacent Land landowner(s) is possible stand in a lowland area) Comments: 2H: Blocked by physical 2B: Unknown if access 027 Not Available 7 obstacle (e.g. upland through adjacent stand in a lowland area) landowner(s) is possible Comments: 2I: Survey needed 028 **Available** 11 5C: Delay treatment for age/size class diversity or exceptional site quality Comments: 2B: Unknown if access 029 Not Available 2H: Blocked by physical 5 obstacle (e.g. upland through adjacent stand in a lowland area) landowner(s) is possible Comments: 2H: Blocked by physical 030 Not Available 9 2B: Unknown if access through adjacent obstacle (e.g. upland landowner(s) is possible stand in a lowland area) Comments: Would require over a mile of road building including over at least one large drainage. Mgt. Unit has been in process of trying to purchase strip of private land between line clearing (for which we could get an easement) and the state land, but it has not

Gladwin Mgt. Unit
Mark Reichel : Examiner

031	Available	2l: Survey needed	12	2H: Blocked by physical	2A: Adjacent landowner
				obstacle (e.g. upland stand in a lowland area)	denied access
C	comments:				
032	Not Available	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	9	2A: Adjacent landowner denied access	
C	comments:				
033	Not Available	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	5	2A: Adjacent landowner denied access	
C	comments:				
034	Available	2I: Survey needed	14	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	2B: Unknown if access through adjacent landowner(s) is possible
С	comments:				
035	Available	2I: Survey needed	8	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	2B: Unknown if access through adjacent landowner(s) is possible
С	Comments:				
036	Available	2I: Survey needed	7	2B: Unknown if access through adjacent landowner(s) is possible	
C	comments:				

Gladwin Mgt. Unit
Mark Reichel: Examiner

037	Not Available	2G: Too wet (sensitive soils, does not include access issues)	30		
С	omments:				
043	Not Available	2G: Too wet (sensitive soils, does not include access issues)	16	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	
С	omments:				
044	Not Available	2G: Too wet (sensitive soils, does not include access issues)	11		
С	omments:				
045	Not Available	2G: Too wet (sensitive soils, does not include access issues)	23		
С	omments:				
046	Not Available	2G: Too wet (sensitive soils, does not include access issues)	10		
С	omments:				
047	Not Available	2G: Too wet (sensitive soils, does not include access issues)	2		
С	omments:				

Gladwin Mgt. Unit
Mark Reichel : Examiner

048	Not Available	2G: Too wet (sensitive soils, does not include access issues)	24
С	omments:		
049	Not Available	2G: Too wet (sensitive soils, does not include access issues)	2
С	omments:		
050	Not Available	2G: Too wet (sensitive soils, does not include access issues)	14
С	omments:		
051	Available	2B: Unknown if access through adjacent landowner(s) is possible	7
С	omments:		
052	Not Available	2G: Too wet (sensitive soils, does not include access issues)	6
С	omments:		
053	Not Available	2G: Too wet (sensitive soils, does not include access issues)	2
С	omments:		

Gladwin Mgt. Unit
Mark Reichel : Examiner

054	Not Available	2G: Too wet (sensitive soils, does not include access issues)	6	
С	omments:			
055	Not Available	2G: Too wet (sensitive soils, does not include access issues)	16	
С	omments:			
056	Available	2I: Survey needed	6	
С	omments:			
058	Not Available	2G: Too wet (sensitive soils, does not include access issues)	2	
С	omments:			
059	Not Available	2G: Too wet (sensitive soils, does not include access issues)	1	
С	omments:			
060	Not Available	2G: Too wet (sensitive soils, does not include access issues)	5	
С	omments:			

Compartment 140

Gladwin Mgt. Unit

Year of Entry 2015 Mark Reichel: Examiner 061 **Not Available** 2G: Too wet (sensitive 6 soils, does not include access issues) Comments: 062 2H: Blocked by physical 6 Not Available obstacle (e.g. upland stand in a lowland area) Comments: 2H: Blocked by physical 2 063 Not Available obstacle (e.g. upland stand in a lowland area) **Comments:** 064 2H: Blocked by physical 17 Not Available obstacle (e.g. upland stand in a lowland area) **Comments:** 065 **Not Available** 2H: Blocked by physical 19 obstacle (e.g. upland stand in a lowland area) Comments: 066 **Not Available** 2H: Blocked by physical 5 obstacle (e.g. upland stand in a lowland area) Comments:

Gladwin Mgt. Unit
Mark Reichel: Examiner

067	Not Available	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	5		
C	comments:				
068	Not Available	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	3		
С	comments:				
069	Not Available	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	2		
С	comments:				
070	Not Available	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	2		
С	comments:				
071	Not Available	2G: Too wet (sensitive soils, does not include access issues)	14		
C	comments:				
072	Not Available	2G: Too wet (sensitive soils, does not include access issues)	9		
С	comments:				

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Mark Reichel : Examiner

073	Not Available	2G: Too wet (sensitive soils, does not include access issues)	7		
С	comments:				
074	Available	5B: Retention for regeneration purposes	9	5C: Delay treatment for age/size class diversity or exceptional site quality	
С	comments:				
075	Available	2I: Survey needed	7		
С	comments:				
076	Not Available	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	9	2l: Survey needed	2B: Unknown if access through adjacent landowner(s) is possible
С	comments:				
077	Available	2I: Survey needed	13	2B: Unknown if access through adjacent landowner(s) is possible	
С	comments:				
078	Available	2I: Survey needed	7	2B: Unknown if access through adjacent landowner(s) is possible	
С	comments:				

Gladwin Mgt. Unit
Mark Reichel: Examiner

079	Not Available	2G: Too wet (sensitive soils, does not include access issues)	3			
	Comments:					
080	Not Available	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	3			
	Comments: Surrounded by bogs	3.				
081	Not Available	2G: Too wet (sensitive soils, does not include access issues)	14			
	Comments: Long, narrow very w large harvest 17 yea		over same wet "neck" mu	ultiple times. Aspen is 82 yrs	s old and may not regenerate. S	tand was buffer strip for
082	Not Available	2G: Too wet (sensitive soils, does not include access issues)	11			
(Comments:					
083	Not Available	2G: Too wet (sensitive soils, does not include access issues)	5			
	Comments:					

Gladwin Mgt. Unit
Mark Reichel : Examiner

084	Not Available	2G: Too wet (sensitive soils, does not include access issues)	12			
С	comments:					
085	Available	5B: Retention for regeneration purposes	38			
_	comments: Oak shelterwood in	process of regeneration				
086	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	11			
С	Comments:					
087	Available	5B: Retention for regeneration purposes	7			
	Comments: 6A is 33. 60-70% (of ash infested with EAB so salv	age sale not possible.			
088	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	12			
	Comments: Rx will be aspen removal. Hold aspen until merchantable.					
089	Not Available	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	23			
С	Comments:					

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Comments: Severe EAB infestation will thin stand to desirable BA	090	Not Available	2H: Blocked by physical obstacle (e.g. upland stand in a lowland area)	39 5B: Retention for regeneration purposes
obstacle (e.g. upland stand in a lowland area) Comments: 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area) Comments: 35 Comments: Comments: Heavy EAB is killing ash. Residual stand will be correct density for a shelterwood. 994 Not Available SG: Too wet (sensitive access issues) Comments: Comments:			tion will thin stand to desirable	ВА
Not Available 2H: Blocked by physical obstacle (e.g. upland stand in a lowland area) 17	091	Not Available	obstacle (e.g. upland	7
Obstacle (e.g. upland stand in a lowland area) Comments: 093	C	omments:		
O93 Available 5B: Retention for regeneration purposes Comments: Heavy EAB is killing ash. Residual stand will be correct density for a shelterwood. O94 Not Available 2G: Too wet (sensitive access issues) Comments: O95 Available 5C: Delay treatment for age/size class diversity or exceptional site quality Comments:	092	Not Available	obstacle (e.g. upland	17
Comments: Heavy EAB is killing ash. Residual stand will be correct density for a shelterwood. O94 Not Available 2G: Too wet (sensitive soils, does not include access issues) Comments: O95 Available 5C: Delay treatment for age/size class diversity or exceptional site quality Comments:	C	omments:		
Heavy EAB is killing ash. Residual stand will be correct density for a shelterwood. O94 Not Available 2G: Too wet (sensitive soils, does not include access issues) Comments: O95 Available 5C: Delay treatment for age/size class diversity or exceptional site quality Comments:	093	Available		35
Soils, does not include access issues) Comments: 095 Available 5C: Delay treatment for age/size class diversity or exceptional site quality Comments:			g ash. Residual stand will be co	orrect density for a shelterwood.
095 Available 5C: Delay treatment for 13 age/size class diversity or exceptional site quality Comments:	094	Not Available	soils, does not include	8
age/size class diversity or exceptional site quality Comments:	C	omments:		
	095	Available	age/size class diversity or	13
			ac in this compartment: this sta	and will hold 10 years.

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096	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	5	
	omments: ready cutting 500	ac in compartment. Stand will	hold	
097	Not Available	2G: Too wet (sensitive soils, does not include access issues)	13	
Co	omments:			
098	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	27	
	omments: eets age criteria	but not silvicultural criteria: aver	age diameter too low for selection	n harvest.
099	Available	5B: Retention for regeneration purposes	16	
	omments: edar/hardwood s	tand. Hold: mortality of small ha	ırdwood component will inhibit de	er movement for purpose of regenerating cedar and hemlock.
100	Available	5C: Delay treatment for age/size class diversity or exceptional site quality	10	
	omments: eets age criteria	but not silvicultural criteria. Ave	rage diameters too low for treatm	ent at this point. Hold until diameters larger.
101	Available	5B: Retention for regeneration purposes	12	
Не	omments: eavy EAB in stan		vage sale. Ash mortality will fund	tionally create equivalent of shelterwood or selection harvest.

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Mark Reichel: Examiner

102	Available	5B: Retention for regeneration purposes	8
_	omments: ow BA, high EAB.	Remaining ash is pole sized.	Currently density equivalent of shelterwood.
103	Available	5B: Retention for regeneration purposes	6
_	omments: A is currently 57, v	which is effectively already a sl	nelterwood harvest, so no treatment this YOE.
104	Available	5B: Retention for regeneration purposes	10
	omments: A is currently so lo	ow that it is already functionally	a shelterwood harvest, so no treatment this YOE.
105	Available	5B: Retention for regeneration purposes	8
	omments: AB heavy so too la	ate for Ash salvage. After ash	dies off density will be equivalent of shelterwood harvest. Hold to regenerate maple.
106	Not Available	5D: Unproductive Forest Land	13
	omments: age is correct, thi	s stand has low volume of mos	sity ash which will soon die off. Stand is mostly tag alder.
107	Not Available	2G: Too wet (sensitive soils, does not include access issues)	5
_	omments:		

Compartment: 140 Year of Entry: 2015



Report 6 - PROPOSED SPECIAL CONSERVATION AREA* (SCA) DETAILS

* This is a partial list of SCAs for this compartment. Not included are those areas identified under other Department initiatives (Natural Rivers, Deer Wintering Areas, etc.). Those will be identified in separate, future map and report products.

SCA Name	SCA Category	Detail Type	Recommendation	Acres
Comments				

Compartment: 140
Year of Entry 2015



Report 7 - DEDICATED CONSERVATION AREA DETAILS

* This is a list of Dedicated Biodiversity Areas for this compartment along with a 1/4 mile buffer surrounding the compartment. Refer to Dedicated Conservation Area Map for areas that the below listed Conservation Areas are located.

Conservation	on Type	Description	ERA = Ecological Reference Area HCVA = High Conservation Value Area SCA = Special Conservation Area
SCA	Archaeological Site	An aquatic or terrestrial area of the State that contains physical r sites of cultural and historical significance that may occur upon to bottomlands. They include thousands of Native American settler and British outposts, nineteenth century logging camps, mines at the Great Lakes, there are shipwrecks and other remains docum be identified by Natural heritage data from the State Historic Pretitis compartment will be implemented in such a manner as to mathe sensitive nature of this information, no further detail about local	errestrial areas and Great Lakes nents and burial sites, as well as French and homesteads. Beneath the waters of enting the maritime trade. Such sites may servation Office. Proposed treatments in aintain the integrity of these sites. Due to
SCA	Cold Water Lake	A coldwater lake has temperature and dissolved oxygen condition stocked trout populations and those of other coldwater fish specific conditions for coldwater fishes may occur in Michigan lakes if the groundwater inflows, or are located in colder (northern) areas of Director's action and designated as trout resources by Fisheries	es to persist from year to year. Suitable by are relatively deep, have substantial the state. Such lakes are established by
SCA	Cold Water Stream	A coldwater stream has temperature and dissolved oxygen cond stocked trout populations and those of other coldwater fish speci year to year. Coldwater streams in Michigan typically provide the contributions of groundwater to their stream flows. Such streams designated as trout resources by Fisheries Order 210.	es (e.g., slimy sculpin) to persist from se conditions due to substantial

S t	Gladwin	Gladwin Mgt. Unit			- Forested Stands	Compartment: 140 Year of Entry: 2015
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
1	4139 - Aspen, Mixed Deciduous	Medium Density	4.6	15		
2	4139 - Aspen, Mixed Deciduous	High Density Pole	4.8	41		
3	4130 - Aspen	High Density Sapling	6.2	15		
4	6119 - Mixed Lowland Deciduous Forest	High Density Pole	9.2	41		
5	6112 - Lowland Aspen	High Density Sapling	15.2	15		
6	6113 - Lowland Maple	High Density Pole	13.6	40		
7	4130 - Aspen	Medium Density Pole	14.6	40		
8	4131 - Aspen, Oak	High Density Pole	1.9	40		
9	4125 - Black, N. Pin Oak	Medium Density Log	10.6	75	51-80	
10	6113 - Lowland Maple	High Density Log	11.6	94	111-140	
11	4130 - Aspen	High Density Pole	3.0	40		
13	6113 - Lowland Maple	Low Density Pole	5.1	94		
14	6113 - Lowland Maple	High Density Pole	13.5	40		
15	4130 - Aspen	High Density Pole	9.3	40		
16	4191 - Mixed Upland Deciduous with Conifer	High Density Log	4.6	75	111-140	
17	4130 - Aspen	Medium Density Pole	11.3	40		
18	6113 - Lowland Maple	High Density Log	20.8	75	51-80	
20	4191 - Mixed Upland Deciduous with Conifer	Medium Density Pole	10.1	40	1-50	

S t	Gladwir		Report 8 –	Forested Stan	Compartment: 140 Year of Entry: 2015	
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
21	4199 - Other Mixed Upland Deciduous	Low Density Log	8.7	75	51-80	
22	42210 - Natural Red Pine	Low Density Log	7.4	44	111-140	
23	4130 - Aspen	High Density Pole	6.7	40		
24	4319 - Mixed Upland Forest	High Density Log	4.6	75	81-110	
25	42210 - Natural Red Pine	Low Density Log	5.2	44	111-140	
26	6119 - Mixed Lowland Deciduous Forest	High Density Pole	31.9	40		
27	42200 - Natural White Pine	High Density Log	11.5	44	111-140	
28	4130 - Aspen	Medium Density Pole	5.2	40		
29	42210 - Natural Red Pine	Low Density Pole	7.7	Uneven Age	1-50	
30	4125 - Black, N. Pin Oak	Medium Density Log	7.8	44	1-50	
31	4133 - Aspen, Mixed Pine	Medium Density Pole	10.9	40		
32	4133 - Aspen, Mixed Pine	Medium Density	6.3	17		
33	4199 - Other Mixed Upland Deciduous	Low Density Pole	9.3	Uneven Age	81-110	Candidate for early aspen harvest if needed.
34	6119 - Mixed Lowland Deciduous Forest	High Density Pole	18.5	40	51-80	
35	6117 - Lowland Deciduous, Mixed Coniferous	Low Density Pole	11.7	82		
36	4130 - Aspen	High Density Pole	1.3	40		
37	4130 - Aspen	High Density Sapling	8.3	17		
38	4199 - Other Mixed Upland Deciduous	Medium Density Log	11.9	75	81-110	

S t	Gladwir		Report 8 –	Forested	Stands Compartment: 140 Year of Entry: 2015	
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
40	6112 - Lowland Aspen	Low Density Sapling	54.8	17		
41	6112 - Lowland Aspen	High Density Sapling	12.0	17		
43	4199 - Other Mixed Upland Deciduous	High Density Log	7.1	54	81-110	
44	4319 - Mixed Upland Forest	High Density Log	7.0	Uneven Age	141-170	
45	6119 - Mixed Lowland Deciduous Forest	Medium Density Log	14.0	82	81-110	
47	4199 - Other Mixed Upland Deciduous	Medium Density Log	18.0	Uneven Age	111-140	
48	6119 - Mixed Lowland Deciduous Forest	Medium Density Log	4.7	100	141-170	
51	6112 - Lowland Aspen	High Density Sapling	9.9	15		
52	4190 - Mixed Upland Deciduous with Cedar	High Density Log	4.7	90	141-170	Light basswood and sugar maple seedlings in ground cover.
53	6139 - Mixed Lowland Forest	High Density Log	4.7	90	141-170	
54	6113 - Lowland Maple	High Density Log	13.0	85	51-80	
55	4191 - Mixed Upland Deciduous with Conifer	Medium Density Log	4.7	65	81-110	Reason for stage 2: MO is N. HDWDS. Doesn't meet age or BA criteria for N. HDWDS, but treating adjacent stands, and not too early to remove seed source of spp. that will ultimately want to remove, and encourage uneven aged N. HDWD stand, I.e. preparatory cut. New ORV road from NE edge of st goes to river.
56	6113 - Lowland Maple	High Density Log	5.0	85	51-80	
57	6119 - Mixed Lowland Deciduous Forest	High Density Log	9.9	39	51-80	
58	6113 - Lowland Maple	High Density Pole	5.5	34	51-80	
61	4124 - Red with White Oak	High Density Pole	4.7	39	51-80	
63	4199 - Other Mixed Upland Deciduous	Medium Density Log	17.5	64	81-110	Reason for Stage 2: aspen is overmature. Want to harvest aspen and maintain as component of mixed upland deciduous stand. Tr of BA, BC, W, CW (overstory).

Gladwi		Report 8 –	Forested S	tands Compartment: 140 Year of Entry: 2015	
Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
4123 - Red Oak	High Density Pole	7.5	39	81-110	
429 - Mixed Upland Conifers	High Density Log	6.2	65	111-140	
4130 - Aspen	High Density Pole	4.6	41		Candidate for early aspen harvest if needed.b
6119 - Mixed Lowland Deciduous Forest	Low Density Sapling	1.1	24		
4199 - Other Mixed Upland Deciduous	High Density Pole	7.5	34	81-110	
6119 - Mixed Lowland Deciduous Forest	High Density Log	12.5	85	81-110	Large deer blind (expensive) in stand 96.
6113 - Lowland Maple	Medium Density Log	16.4	93	111-140	
6119 - Mixed Lowland Deciduous Forest	High Density Log	14.1	93	81-110	
6119 - Mixed Lowland Deciduous Forest	High Density Pole	9.2	34	171-200	
4133 - Aspen, Mixed Pine	High Density Log	16.8	41		Candidate for early harvest if needed.
4130 - Aspen	High Density Pole	15.0	41	51-80	Candidate for early aspen harvest if necessary to balance aspen age class distribution.
6119 - Mixed Lowland Deciduous Forest	High Density Log	8.2	Uneven Age	81-110	
4130 - Aspen	High Density Pole	15.6	24		
4310 - Pine, Oak Mix	High Density Log	13.3	99	111-140	
4199 - Other Mixed Upland Deciduous	High Density Log	28.2	Uneven Age	81-110	
4123 - Red Oak	High Density Log	3.4	55	81-110	
6119 - Mixed Lowland Deciduous Forest	High Density Pole	9.1	41	81-110	
4130 - Aspen	High Density Log	6.9	41		Candidate for early aspen harvest if need to balance aspen age distribution.
	Level 4 Cover Type 4123 - Red Oak 429 - Mixed Upland Conifers 4130 - Aspen 6119 - Mixed Lowland Deciduous Forest 4199 - Other Mixed Upland Deciduous 6119 - Mixed Lowland Deciduous Forest 6113 - Lowland Maple 6119 - Mixed Lowland Deciduous Forest 4130 - Aspen 4130 - Aspen 4130 - Aspen 4130 - Aspen 4130 - Pine, Oak Mix 4199 - Other Mixed Upland Deciduous 4123 - Red Oak 6119 - Mixed Lowland Deciduous Forest	Cover TypeDensity4123 - Red OakHigh Density Pole429 - Mixed Upland ConifersHigh Density Log4130 - AspenHigh Density Pole6119 - Mixed Lowland Deciduous ForestLow Density Sapling4199 - Other Mixed Upland DeciduousHigh Density Pole6113 - Lowland MapleMedium Density Log6119 - Mixed Lowland Deciduous ForestHigh Density Log6119 - Mixed Lowland Deciduous ForestHigh Density Pole4130 - Aspen, Mixed PineHigh Density High Density Log4130 - AspenHigh Density High Density Log4310 - Pine, Oak MixHigh Density Log4199 - Other Mixed Upland DeciduousHigh Density Log4123 - Red OakHigh Density Log6119 - Mixed Lowland Deciduous ForestHigh Density Log4130 - AspenHigh Density Log4130 - Mixed Lowland Deciduous ForestHigh Density Log4123 - Red OakHigh Density Pole4130 - AspenHigh Density Pole	Level 4 Cover TypeSize DensityAcres4123 - Red OakHigh Density Pole7.5429 - Mixed Upland ConifersHigh Density Log6.24130 - AspenHigh Density Pole4.66119 - Mixed Lowland Deciduous ForestLow Density Sapling1.14199 - Other Mixed Upland DeciduousHigh Density Pole7.56119 - Mixed Lowland Deciduous ForestHigh Density Log12.56119 - Mixed Lowland 	Level 4 Cover Type Size Density Acres Stand Age 4123 - Red Oak High Density Pole 7.5 39 429 - Mixed Upland Conifers High Density Log 6.2 65 4130 - Aspen High Density Log 4.6 41 6119 - Mixed Lowland Deciduous Forest Low Density Sapling 1.1 24 4199 - Other Mixed Upland Deciduous Forest High Density Pole 7.5 34 6119 - Mixed Lowland Deciduous Forest High Density Log 12.5 85 6113 - Lowland Maple Density Log 16.4 93 6119 - Mixed Lowland Deciduous Forest High Density Pole 9.2 34 6119 - Mixed Lowland Pine High Density Log 16.8 41 4130 - Aspen, Mixed Pine High Density Log 15.0 41 6119 - Mixed Lowland Deciduous Forest High Density Log 8.2 Uneven Age 4130 - Aspen High Density Log 13.3 99 4130 - Pine, Oak Mix Pole High Density Log 28.2 Uneven Age 4123 - Red Oak Lowland Deciduous Forest High Density Log <td>Level 4 Cover Type Size Density Acres Stand Age BA Range 4123 - Red Oak High Density Pole 7.5 39 81-110 429 - Mixed Upland Conifers High Density Log 6.2 65 111-140 4130 - Aspen High Density Pole 4.6 41 41 6119 - Mixed Lowland Deciduous Forest Low Density Sapling 1.1 24 81-110 6119 - Mixed Lowland Upland Deciduous Forest High Density Pole 7.5 34 81-110 6113 - Lowland Maple Deciduous Forest Medium Density Log 16.4 93 111-140 6119 - Mixed Lowland Deciduous Forest High Density Log 14.1 93 81-110 6119 - Mixed Lowland Deciduous Forest High Density Pole 9.2 34 171-200 4130 - Aspen High Density Pole 15.0 41 51-80 6119 - Mixed Lowland Deciduous Forest High Density Log 8.2 Uneven Age 81-110 4130 - Aspen High Density Log 15.6 24 4130 - Pine, Oak Mix Log High Density Log</td>	Level 4 Cover Type Size Density Acres Stand Age BA Range 4123 - Red Oak High Density Pole 7.5 39 81-110 429 - Mixed Upland Conifers High Density Log 6.2 65 111-140 4130 - Aspen High Density Pole 4.6 41 41 6119 - Mixed Lowland Deciduous Forest Low Density Sapling 1.1 24 81-110 6119 - Mixed Lowland Upland Deciduous Forest High Density Pole 7.5 34 81-110 6113 - Lowland Maple Deciduous Forest Medium Density Log 16.4 93 111-140 6119 - Mixed Lowland Deciduous Forest High Density Log 14.1 93 81-110 6119 - Mixed Lowland Deciduous Forest High Density Pole 9.2 34 171-200 4130 - Aspen High Density Pole 15.0 41 51-80 6119 - Mixed Lowland Deciduous Forest High Density Log 8.2 Uneven Age 81-110 4130 - Aspen High Density Log 15.6 24 4130 - Pine, Oak Mix Log High Density Log

S t	Gladwir		Report 8 –	Forested	Stands	Compartment: 140 Year of Entry: 2015		
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range		General Comments:	MICHIGAN
86	6127 - Lowland Pine	Low Density Pole	1.6	Uneven Age	1-50			
87	4139 - Aspen, Mixed Deciduous	High Density Sapling	12.0	15				
89	4130 - Aspen	High Density Pole	4.6	34				
90	6112 - Lowland Aspen	High Density Pole	80.7	34				
92	42290 - Natural Mixed Pine	Low Density Log	8.1	85	111-140			
93	4119 - Mixed Northern Hardwoods	High Density Log	31.0	81	81-110	visible. Adjacent to that floods occasiona	e BA 98 from 18 plots. Old re river on relatively high bench: lly (20 to 50 yrs?). Heavy equ WA, W, YB, WA, HB, BW, H, understory.	upland soil iisetum grnd
94	6115 - Lowland Ash	High Density Log	7.8	93	141-170			
95	42200 - Natural White Pine	Low Density Log	7.0	75	1-50			
96	6113 - Lowland Maple	High Density Pole	14.4	100	51-80			
97	6119 - Mixed Lowland Deciduous Forest	High Density Pole	5.0	34				
98	6119 - Mixed Lowland Deciduous Forest	Medium Density Log	7.2	93	1-50			
100	4191 - Mixed Upland Deciduous with Conifer	High Density Log	9.4	67	51-80			
101	6119 - Mixed Lowland Deciduous Forest	Medium Density Log	8.3	81	111-140			
102	6119 - Mixed Lowland Deciduous Forest	Medium Density Log	8.0	85	81-110			
104	6113 - Lowland Maple	High Density Log	34.9	84	51-80			
105	42200 - Natural White Pine	Medium Density Log	5.0	85	81-110			
106	4131 - Aspen, Oak	Low Density Sapling	5.3	15				

S t	Gladwin		Report 8 –	Forested	Stands	Compartment: 140 Year of Entry: 2015		
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range		General Comments:	MICHIGAN
107	6113 - Lowland Maple	Medium Density Log	20.3	Uneven Age	141-170			
108	6112 - Lowland Aspen	High Density Pole	10.4	39			to regulate aspen age classes in tent. Stand has fairly good volume	
110	4125 - Black, N. Pin Oak	High Density Log	8.9	85	111-140			
111	4130 - Aspen	High Density Sapling	6.2	15				
113	6119 - Mixed Lowland Deciduous Forest	High Density Log	12.6	81	81-110			
114	4311 - Pine, Aspen Mix	High Density Log	11.6	85	81-110			
116	6112 - Lowland Aspen	High Density Pole	5.1	64				
117	6112 - Lowland Aspen	High Density Pole	16.6	34	51-80			
118	6113 - Lowland Maple	High Density Log	7.1	102	81-110			
119	4199 - Other Mixed Upland Deciduous	Medium Density Pole	4.7	26	1-50			
120	6119 - Mixed Lowland Deciduous Forest	Medium Density Pole	16.8	84	81-110			
121	6112 - Lowland Aspen	High Density Pole	18.2	34				
122	4111 - S.Maple, Hard Mast Association	High Density Log	19.0	98	81-110			
123	6113 - Lowland Maple	High Density Pole	22.3	34	51-80			
124	6115 - Lowland Ash	Medium Density Pole	13.0	81	51-80		EAB 6-8. Floodplain (2nd tier be y); SWO, BW, QA, Dgwood, black	
125	6113 - Lowland Maple	High Density Log	14.9	81	51-80			
126	6112 - Lowland Aspen	High Density Pole	9.8	37				
127	4123 - Red Oak	Medium Density Log	37.5	93	51-80			

S t	Gladwi		Report 8 –	Forested Stands	Compartment: 140 Year of Entry: 2015	
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
128	4319 - Mixed Upland Forest	Low Density Log	4.7	Uneven Age	81-110	
129	6119 - Mixed Lowland Deciduous Forest	High Density Pole	5.6	34		
130	6119 - Mixed Lowland Deciduous Forest	High Density Log	38.6	102	111-140	
131	6119 - Mixed Lowland Deciduous Forest	High Density Log	10.6	84	51-80	
132	6112 - Lowland Aspen	High Density Pole	29.6	34		
133	6112 - Lowland Aspen	High Density Pole	8.8	38		
137	6119 - Mixed Lowland Deciduous Forest	Low Density Sapling	5.1	66	1-50	
138	6112 - Lowland Aspen	Low Density Pole	19.9	38		
143	6119 - Mixed Lowland Deciduous Forest	High Density Log	4.6	90	81-110	
144	6117 - Lowland Deciduous, Mixed Coniferous	High Density Log	22.7	83		
145	42220 - Natural Jack Pine	High Density Pole	2.9	71		
150	6112 - Lowland Aspen	High Density Sapling	5.3	15		
151	6119 - Mixed Lowland Deciduous Forest	Low Density Pole	7.1	35	1-50	
153	6119 - Mixed Lowland Deciduous Forest	High Density Pole	7.7	79	51-80	
154	42220 - Natural Jack Pine	High Density Pole	4.7	28	51-80	
155	6126 - Lowland Jack Pine	Low Density Pole	4.6	28	1-50	
156	4130 - Aspen	Medium Density	8.1	15		
158	4130 - Aspen	Medium Density Pole	8.8	79		

Level 4 Cover Type 6127 - Lowland Pine 6113 - Lowland Maple	Size Density High Density Log Low Density	Acres	Stand Age	BA Range	General Comments:
6113 - Lowland Maple	Log	5.8			
	Low Donaity		66	200+	
	Pole	6.8	35	1-50	
6139 - Mixed Lowland Forest	Low Density Sapling	6.3	28		
6119 - Mixed Lowland Deciduous Forest	High Density Log	62.0	Uneven Age	81-110	
6119 - Mixed Lowland Deciduous Forest	Low Density Pole	10.2	79	1-50	
4130 - Aspen	High Density Sapling	22.2	15		
6119 - Mixed Lowland Deciduous Forest	Low Density Sapling	8.7	15		
6112 - Lowland Aspen	Medium Density	23.1	15		
4199 - Other Mixed Upland Deciduous	Medium Density Pole	14.6	37	51-80	
6126 - Lowland Jack Pine	Medium Density Pole	3.2	71		
6112 - Lowland Aspen	Low Density Pole	4.7	66		
4125 - Black, N. Pin Oak	High Density Pole	5.7	79	51-80	
6113 - Lowland Maple	High Density Pole	5.3	Uneven Age	171-200	
6126 - Lowland Jack Pine	Low Density Pole	5.3	71		
6119 - Mixed Lowland Deciduous Forest	Low Density Pole	9.7	79	51-80	
6126 - Lowland Jack Pine	Low Density Pole	7.0	71		
6119 - Mixed Lowland Deciduous Forest	Medium Density Log	11.9	90	81-110	
6119 - Mixed Lowland Deciduous Forest	High Density Log	11.8	Uneven Age	51-80	
	6119 - Mixed Lowland Deciduous Forest 6119 - Mixed Lowland Deciduous Forest 4130 - Aspen 6119 - Mixed Lowland Deciduous Forest 6112 - Lowland Aspen 4199 - Other Mixed Upland Deciduous 6126 - Lowland Jack Pine 6112 - Lowland Aspen 4125 - Black, N. Pin Oak 6113 - Lowland Maple 6126 - Lowland Jack Pine 6119 - Mixed Lowland Deciduous Forest 6119 - Mixed Lowland Deciduous Forest 6119 - Mixed Lowland Deciduous Forest 6119 - Mixed Lowland Deciduous Forest	Forest Sapling 6119 - Mixed Lowland Deciduous Forest Log 6119 - Mixed Lowland Deciduous Forest Low Density Pole 4130 - Aspen High Density Sapling 6119 - Mixed Lowland Deciduous Forest Sapling 6119 - Mixed Lowland Low Density Sapling 6112 - Lowland Aspen Medium Density Pole 4199 - Other Mixed Upland Deciduous Medium Density Pole 6126 - Lowland Jack Pine Low Density Pole 6112 - Black, N. Pin Oak High Density Pole 6113 - Lowland Maple High Density Pole 6116 - Lowland Jack Pine Low Density Pole 6126 - Lowland Jack Dele Low Density Pole 6126 - Lowland Jack Dele Low Density Pole 6126 - Lowland Jack Dele Low Density Pole 6119 - Mixed Lowland Deciduous Forest Low Density Pole 6119 - Mixed Lowland Deciduous Forest Low Density Pole 6119 - Mixed Lowland Deciduous Forest Low Density Pole 6119 - Mixed Lowland Deciduous Forest Low Density Pole 6119 - Mixed Lowland Density Pole 6119 - Mixed Lowland Deciduous Forest Density Log 6119 - Mixed Lowland High Density	Forest Sapling 6119 - Mixed Lowland Deciduous Forest Log 6119 - Mixed Lowland Deciduous Forest Low Density Pole 4130 - Aspen High Density Sapling 6119 - Mixed Lowland Deciduous Forest Sapling 6112 - Lowland Aspen Medium Density Pole 4199 - Other Mixed Upland Deciduous Density Pole 6126 - Lowland Jack Pine Density Pole 6112 - Lowland Aspen Low Density Pole 6113 - Lowland Aspen Low Density Pole 4125 - Black, N. Pin Oak High Density Pole 6113 - Lowland Jack Pole 6116 - Lowland Jack Delevity Pole 6117 - Mixed Lowland Deciduous Density Pole 6126 - Lowland Jack Delevity Pole 6127 - Mixed Lowland Deciduous Forest Delevity Pole 6128 - Lowland Jack Density Pole 6129 - Mixed Lowland Deciduous Forest Density Pole 6129 - Mixed Lowland Deciduous Forest Density Pole 6139 - Mixed Lowland Density Pole 6149 - Mixed Lowland Density Density Log 6149 - Mixed Lowland High Density 11.8	Forest Sapling 62.0 Uneven Age 6119 - Mixed Lowland Deciduous Forest Log 62.0 Uneven Age 6119 - Mixed Lowland Deciduous Forest Log 10.2 79 6119 - Mixed Lowland Deciduous Forest Low Density Sapling 22.2 15 6119 - Mixed Lowland Deciduous Forest Sapling 8.7 15 6119 - Mixed Lowland Deciduous Forest Sapling 23.1 15 6112 - Lowland Aspen Medium Density Pole 14.6 37 6126 - Lowland Jack Pine Medium Density Pole 3.2 71 6112 - Lowland Aspen Low Density Pole 4.7 66 6126 - Lowland Aspen Low Density Pole 5.7 79 6113 - Lowland Maple High Density Pole 5.3 Uneven Age 6126 - Lowland Jack Pine Low Density Pole 5.3 71 6119 - Mixed Lowland Deciduous Forest Low Density Pole 9.7 79 6126 - Lowland Jack Pine 10.0 Density Pole 5.3 71 6119 - Mixed Lowland Deciduous Forest Density Pole 9.7 79 6126 - Lowland Jack Pine 10.0 Density Pole 9.7 79 6127 - Mixed Lowland Deciduous Forest Density Pole 11.9 90 6139 - Mixed Lowland Deciduous Forest Density Log 90 6140 - Mixed Lowland Density Pole 11.8 Uneven Age	Forest Sapling Sapli

S t	Gladwi	n Mgt. Unit		Report 8 –	Forested Stand	S Compartment: 140 Year of Entry: 2015
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
184	42290 - Natural Mixed Pine	High Density Pole	6.9	71	111-140	
186	42220 - Natural Jack Pine	Medium Density Pole	8.5	71	111-140	
187	6115 - Lowland Ash	Low Density Pole	8.0	90	1-50	
188	6128 - Lowland Coniferous, Mixed Deciduous	High Density Pole	16.2	79		
189	6113 - Lowland Maple	High Density Log	27.4	90	81-110	
191	6119 - Mixed Lowland Deciduous Forest	High Density Log	5.1	Uneven Age	81-110	
192	6117 - Lowland Deciduous, Mixed Coniferous	High Density Pole	9.1	39		
193	6113 - Lowland Maple	Low Density Pole	13.2	71		
194	6119 - Mixed Lowland Deciduous Forest	High Density Pole	43.9	40	81-110	
195	6112 - Lowland Aspen	Low Density Pole	6.0	70		
196	6115 - Lowland Ash	Medium Density Pole	26.7	90	51-80	
199	6119 - Mixed Lowland Deciduous Forest	High Density Log	10.5	Uneven Age	111-140	
200	6119 - Mixed Lowland Deciduous Forest	Low Density Pole	4.7	39	1-50	
201	4199 - Other Mixed Upland Deciduous	High Density Pole	10.8	90	81-110	
203	6119 - Mixed Lowland Deciduous Forest	Medium Density Pole	4.8	Uneven Age	51-80	
204	6112 - Lowland Aspen	Medium Density Pole	4.6	35		
205	6113 - Lowland Maple	High Density Log	4.8	Uneven Age	200+	
206	6112 - Lowland Aspen	Medium Density Pole	19.0	39		

S t	Gladwi	Gladwin Mgt. Unit			Forested	Compartment: 140 Year of Entry: 2015	DNR DNR	
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range		General Comments:	MICHIGAN .
207	6113 - Lowland Maple	High Density Log	9.3	Uneven Age	111-140			
209	6119 - Mixed Lowland Deciduous Forest	High Density Log	29.4	Uneven Age	81-110			
210	4130 - Aspen	Medium Density Pole	4.8	39				
213	6119 - Mixed Lowland Deciduous Forest	High Density Log	5.5	63				
214	4130 - Aspen	High Density Pole	7.2	38		compartment: th	arvest to regulate aspen age cla ere is a spike in 31-40 age class ugh aspen aged 50+ to restart.	
215	4130 - Aspen	Low Density Sapling	5.6	35			e: should be converted to red or increase stem density. REGEN	
216	42220 - Natural Jack Pine	High Density Sapling	1.1	35				
218	6112 - Lowland Aspen	Medium Density Pole	11.1	63				
220	6113 - Lowland Maple	High Density Pole	29.1	38	51-80			
221	42221 - Natural Jack Pine, Mixed Deciduous	High Density Pole	18.7	79				
224	4139 - Aspen, Mixed Deciduous	High Density Pole	17.4	63				
227	6112 - Lowland Aspen	Low Density Pole	4.6	63				
235	6119 - Mixed Lowland Deciduous Forest	Low Density Log	13.6	82	1-50			
236	6112 - Lowland Aspen	High Density Pole	36.6	38				
237	6112 - Lowland Aspen	Low Density Pole	23.1	38				
238	6115 - Lowland Ash	High Density Pole	8.4	90	51-80			
239	6119 - Mixed Lowland Deciduous Forest	Low Density Sapling	13.2	38				
240	6119 - Mixed Lowland Deciduous Forest	Low Density Pole	13.3	82				

S t	Gladwii	n Mgt. Unit		Report 8 –	Forested Stands	Compartment: 140 Year of Entry: 2015
a n d	Level 4 Cover Type	Size Density	Acres	Stand Age	BA Range	General Comments:
241	6119 - Mixed Lowland Deciduous Forest	High Density Pole	14.5	82		
242	6119 - Mixed Lowland Deciduous Forest	Medium Density Log	6.5	Uneven Age	111-140	
243	6113 - Lowland Maple	Low Density Pole	12.7	84	1-50	
244	6113 - Lowland Maple	High Density Log	5.7	75	81-110	
247	6119 - Mixed Lowland Deciduous Forest	Low Density Log	11.2	75	51-80	
249	6119 - Mixed Lowland Deciduous Forest	High Density Log	5.5	90	81-110	
250	6115 - Lowland Ash	Low Density Sapling	36.3	26		
251	6112 - Lowland Aspen	Medium Density Pole	11.0	60	1-50	
252	6115 - Lowland Ash	Low Density Sapling	4.7	75		
253	6115 - Lowland Ash	Medium Density Pole	19.6	65	1-50	
255	6119 - Mixed Lowland Deciduous Forest	Medium Density Pole	6.5	65	1-50	
257	6112 - Lowland Aspen	Low Density Pole	4.6	60	51-80	
261	6113 - Lowland Maple	Medium Density Pole	29.2	60	51-80	
263	6112 - Lowland Aspen	Low Density Log	9.4	82		

Gladwin Mgt. Unit

Report 9 - Nonforested Stands



Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
3303 - Mixed Low Density Trees	1.0	No	Unspecified	
3303 - Mixed Low Density Trees	1.9	No	Unspecified	
6224 - Treed Bog	1.1	No	Unspecified	Succeeding to forest
3102 - Grass	1.9	No	Unspecified	
50 - Water	1.2	No	Unspecified	Slough running into Rifle River. Large culvert under Arenac State Rd.
50 - Water	6.2	No	Unspecified	
3105 - Mixed Upland Herbaceous	1.9	No	Low (NonForested)	Camping area for "sucker fest" along Rifle River. Road, low to moderate litter. 10% assorted trees.
3105 - Mixed Upland Herbaceous	1.5	No	Unspecified	Trespass. Private seems to be posted about 20 ft on state according to gps and photo. Metal no trespassing sign 33 ft on state at E end. Also road to house at E end. Some materials appear to being stored just over property line on state, including a few old farm implements, wire fencing. No monument found.
122 - Road/Parking Lot	3.9	N\A	Unspecified	
50 - Water	1.0	No	Unspecified	
6220 - Alder/willow	1.0	No	Unspecified	Bend of river- very wet.
3105 - Mixed Upland Herbaceous	1.5	Yes	High (NonForested)	
6220 - Alder/willow	1.7	No	Unspecified	Shrub with small fruit and round flowers, opposite leaves with twigs at roughly 45 degree angle with main stem in longtitudinal plane. Buttonbush?
3105 - Mixed Upland Herbaceous	1.4	Yes	High (NonForested)	
3105 - Mixed Upland Herbaceous	1.2	No	Unspecified	Mixed upland non-forest
6233 - Wet Meadow	9.2	No	Unspecified	
	3303 - Mixed Low Density Trees 3303 - Mixed Low Density Trees 6224 - Treed Bog 3102 - Grass 50 - Water 3105 - Mixed Upland Herbaceous 122 - Road/Parking Lot 50 - Water 6220 - Alder/willow 3105 - Mixed Upland Herbaceous 6220 - Alder/willow 3105 - Mixed Upland Herbaceous	3303 - Mixed Low Density Trees 1.9 3303 - Mixed Low Density Trees 1.9 6224 - Treed Bog 1.1 3102 - Grass 1.9 50 - Water 6.2 3105 - Mixed Upland Herbaceous 1.9 3105 - Mixed Upland Herbaceous 1.5 122 - Road/Parking Lot 3.9 50 - Water 1.0 3105 - Mixed Upland Herbaceous 1.5 6220 - Alder/willow 1.0 3105 - Mixed Upland Herbaceous 1.5 6220 - Alder/willow 1.7 3105 - Mixed Upland Herbaceous 1.5 3105 - Mixed Upland Herbaceous 1.4 3105 - Mixed Upland Herbaceous 1.4	Cover Type Acres Site 3303 - Mixed Low Density Trees 1.0 No 3303 - Mixed Low Density Trees 1.9 No 6224 - Treed Bog 1.1 No 3102 - Grass 1.9 No 50 - Water 1.2 No 3105 - Water 6.2 No 3105 - Mixed Upland Herbaceous 1.9 No 122 - Road/Parking Lot 3.9 NNA 50 - Water 1.0 No 6220 - Alder/willow 1.0 No 3105 - Mixed Upland Herbaceous 1.5 Yes 6220 - Alder/willow 1.7 No 3105 - Mixed Upland Herbaceous 1.4 Yes 3105 - Mixed Upland Herbaceous 1.2 No	3303 - Mixed Low Density Trees 1.0 No Unspecified 3303 - Mixed Low Density Trees 1.9 No Unspecified 3303 - Mixed Low Density Trees 1.9 No Unspecified 3102 - Grass 1.9 No Unspecified 50 - Water 1.2 No Unspecified 50 - Water 6.2 No Unspecified 3105 - Mixed Upland Herbaceous 1.9 No Low (NonForested) 3105 - Mixed Upland Herbaceous 1.5 No Unspecified 50 - Water 1.0 No Unspecified 50 - Water 1.0 No Unspecified 5105 - Mixed Upland Herbaceous 1.5 Yes High (NonForested) 1105 - Mixed Upland Herbaceous 1.7 No Unspecified 1105 - Mixed Upland Herbaceous 1.7 No Unspecified





Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
3102 - Grass	2.5	No	Unspecified	
3102 - Grass	2.3	No	Unspecified	
50 - Water	13.9	No	Unspecified	
50 - Water	6.9	No	Unspecified	Oxbow Lake of Rifle River
3301 - Low Density Deciduous Tree	1.8	No	Unspecified	S 1/2 is pasture trespass: barbed wire, posted, brush row. East 1/2 open with scattered trees along river.
6220 - Alder/willow	5.3	No	Unspecified	
122 - Road/Parking Lot	3.5	Yes	High (NonForested)	
50 - Water	3.2	N\A	Unspecified	
3103 - Rubus-Fern	2.4	No	Unspecified	
6220 - Alder/willow	7.7	No	Unspecified	
6220 - Alder/willow	1.2	No	Unspecified	
6220 - Alder/willow	6.4	No	Unspecified	
6220 - Alder/willow	4.9	No	Unspecified	
629 - Mixed non-forested wetland	1.8	No	Unspecified	
3301 - Low Density Deciduous Tree	1.5	No	Unspecified	
6225 - Bog	5.9	No	Unspecified	
3102 - Grass	3.0	No	Unspecified	
6224 - Treed Bog	4.3	No	Unspecified	
	3102 - Grass 3102 - Grass 50 - Water 50 - Water 3301 - Low Density Deciduous Tree 6220 - Alder/willow 122 - Road/Parking Lot 50 - Water 3103 - Rubus-Fern 6220 - Alder/willow 6220 - Bog 3102 - Grass	3102 - Grass 2.5 3102 - Grass 2.3 50 - Water 13.9 50 - Water 6.9 3301 - Low Density Deciduous Tree 1.8 6220 - Alder/willow 5.3 122 - Road/Parking Lot 3.5 50 - Water 3.2 3103 - Rubus-Fern 2.4 6220 - Alder/willow 7.7 6220 - Alder/willow 1.2 6220 - Alder/willow 6.4 6220 - Alder/willow 4.9 629 - Mixed non-forested wetland 1.8 3301 - Low Density Deciduous Tree 1.5 6225 - Bog 5.9 3102 - Grass 3.0	Cover type Acres site 3102 - Grass 2.5 No 3102 - Grass 2.3 No 50 - Water 13.9 No 50 - Water 6.9 No 3301 - Low Density Deciduous Tree 1.8 No 6220 - Alder/willow 5.3 No 50 - Water 3.5 Yes 50 - Water 3.2 NNA 3103 - Rubus-Fern 2.4 No 6220 - Alder/willow 7.7 No 6220 - Alder/willow 1.2 No 6220 - Alder/willow 4.9 No 6220 - Alder/willow 4.9 No 6229 - Mixed non-forested wetland 1.8 No 3301 - Low Density Deciduous Tree 1.5 No 6225 - Bog 5.9 No 3102 - Grass 3.0 No	3102 - Grass 2.5

Report 9 - Nonforested Stands



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
161	3303 - Mixed Low Density Trees	1.0	No	Unspecified	70% upland. Roads at N and S ends running E. Area in middle low with TA.
168	6220 - Alder/willow	1.1	No	Unspecified	
170	6224 - Treed Bog	3.7	No	Unspecified	
177	3105 - Mixed Upland Herbaceous	1.0	Yes	Medium (NonForested)	50% composit flower over grass, 50% mowed grass. Grape vines and clothes line on state: appears to be trespass. Fence row of white pine blocks view of private land.
178	629 - Mixed non-forested wetland	4.0	No	Unspecified	TA, 10% bog, marsh grass, scattered PO, QA, TR of SWO.
179	6225 - Bog	6.6	No	Unspecified	
181	3103 - Rubus-Fern	2.9	No	Unspecified	Bracken w/ scattered O, J: portion of clearcut that failed 15 yrs ago.
185	6225 - Bog	7.0	No	Unspecified	
190	6224 - Treed Bog	13.4	No	Unspecified	Nearly forested: 15 to 20% tree cover.
197	6220 - Alder/willow	9.0	No	Unspecified	10-15% tree cover: would type as lowland low density mixed forest if there was such a forest type. Portion of old OI stand 51: harvest was mostly in stand 108.
198	6225 - Bog	3.7	No	Unspecified	
202	629 - Mixed non-forested wetland	7.0	No	Unspecified	
208	3105 - Mixed Upland Herbaceous	3.3	No	Unspecified	50 to 60% upland. Unidentified shrub might be "buck brush"?
211	6220 - Alder/willow	4.3	No	Unspecified	
212	11 - Low Intensity Urban	1.1	No	Unspecified	Road and adjacent mowed shoulder. No cover type coad for road/parking lot available.
217	3105 - Mixed Upland Herbaceous	1.0	No	Unspecified	
219	6239 - Mixed Emergent Wetland	1.8	No	Unspecified	

Report 9 - Nonforested Stands



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
222	6224 - Treed Bog	7.2	No	Unspecified	
223	6239 - Mixed Emergent Wetland	2.2	No	Unspecified	
225	6239 - Mixed Emergent Wetland	2.1	No	Unspecified	
226	6220 - Alder/willow	7.1	No	Unspecified	Actually "Low density trees over lowland shrubs". 17% lowland hdwds, 7% marsh, 76% lowland shrubs.
228	3301 - Low Density Deciduous Tree	5.2	No	Unspecified	
229	6239 - Mixed Emergent Wetland	3.0	No	Unspecified	
230	6233 - Wet Meadow	5.0	No	Unspecified	
231	6233 - Wet Meadow	1.1	No	Unspecified	
232	6220 - Alder/willow	30.2	No	Unspecified	Mature TA and 15% namture willow. 15 to 20 ft tall.
233	790 - Other Bare/Sparsely Vegetate	4.9	No	Unspecified	Drain with windrow of soil from excavation, and service road for farm field to N.
234	6233 - Wet Meadow	1.7	No	Unspecified	
245	6224 - Treed Bog	16.3	No	Unspecified	EAB mortality has pushed sparse stand back to non-forested.
246	6220 - Alder/willow	11.3	No	Unspecified	TA to northwest, willow at SE
248	6233 - Wet Meadow	1.1	No	Unspecified	
254	6233 - Wet Meadow	2.0	No	Unspecified	
256	6220 - Alder/willow	22.8	No	Unspecified	
258	6220 - Alder/willow	15.8	No	Unspecified	mature TA with scattered ash over reed grass.
259	11 - Low Intensity Urban	1.0	No	Unspecified	Unpaved road.

Report 9 - Nonforested Stands



Stand	Cover Type	Acres	Managed Site	Management Priority (Objective)	General Comments:
260	3303 - Mixed Low Density Trees	7.0	No	Unspecified	
262	6224 - Treed Bog	14.4	No	Unspecified	
264	6220 - Alder/willow	23.9	No	Unspecified	
265	6220 - Alder/willow	9.5	No	Unspecified	
266	6225 - Bog	1.9	No	Unspecified	
267	6239 - Mixed Emergent Wetland	1.2	No	Unspecified	
268	6224 - Treed Bog	6.0	No	Unspecified	Actually Marsh with 16% trees and 25% lowland shrub, but no code for "treed marsh"
269	6225 - Bog	1.7	No	Unspecified	
270	6220 - Alder/willow	6.4	No	Unspecified	Was sparse ash, but ash has mostly been killed by EAB.